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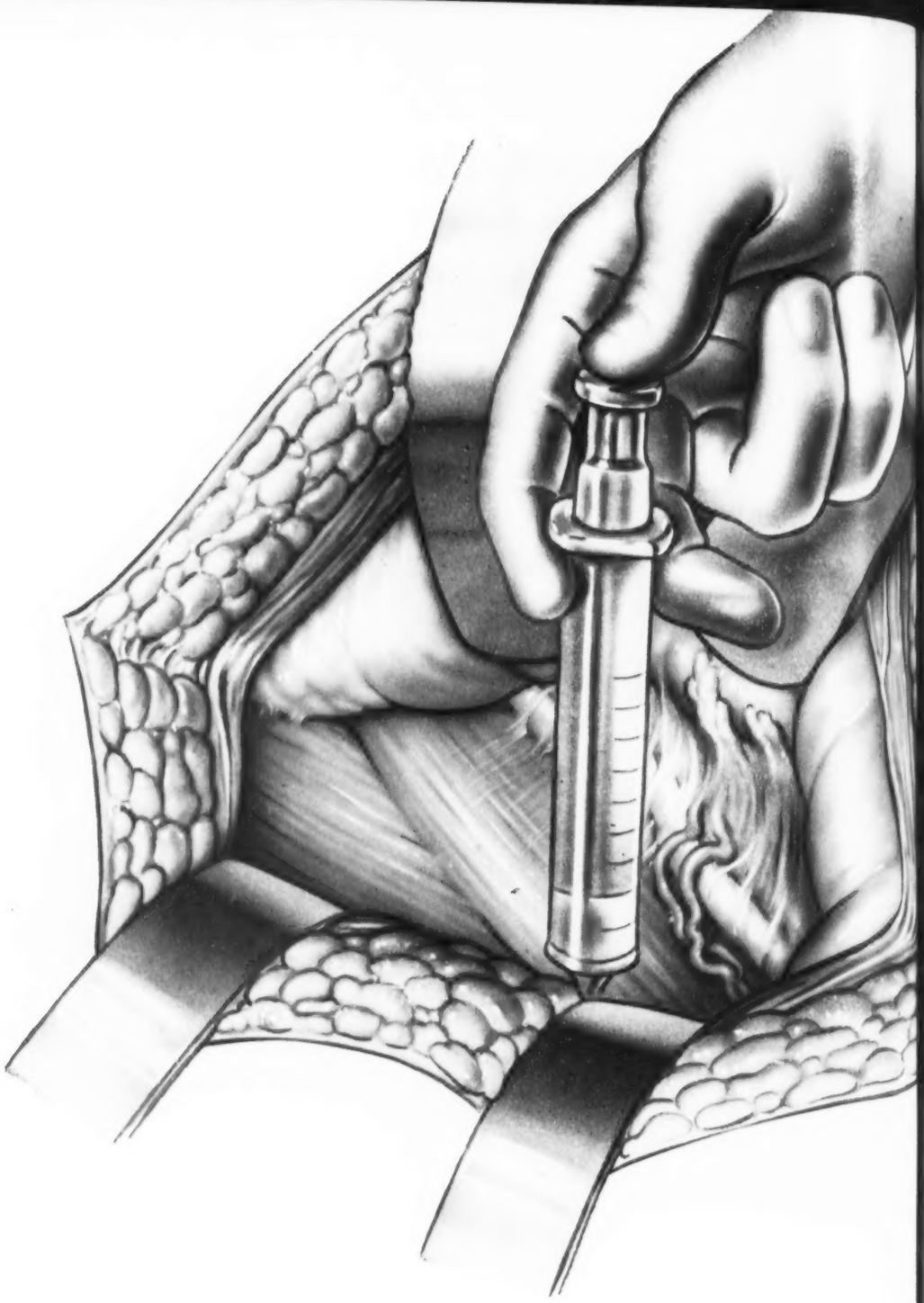

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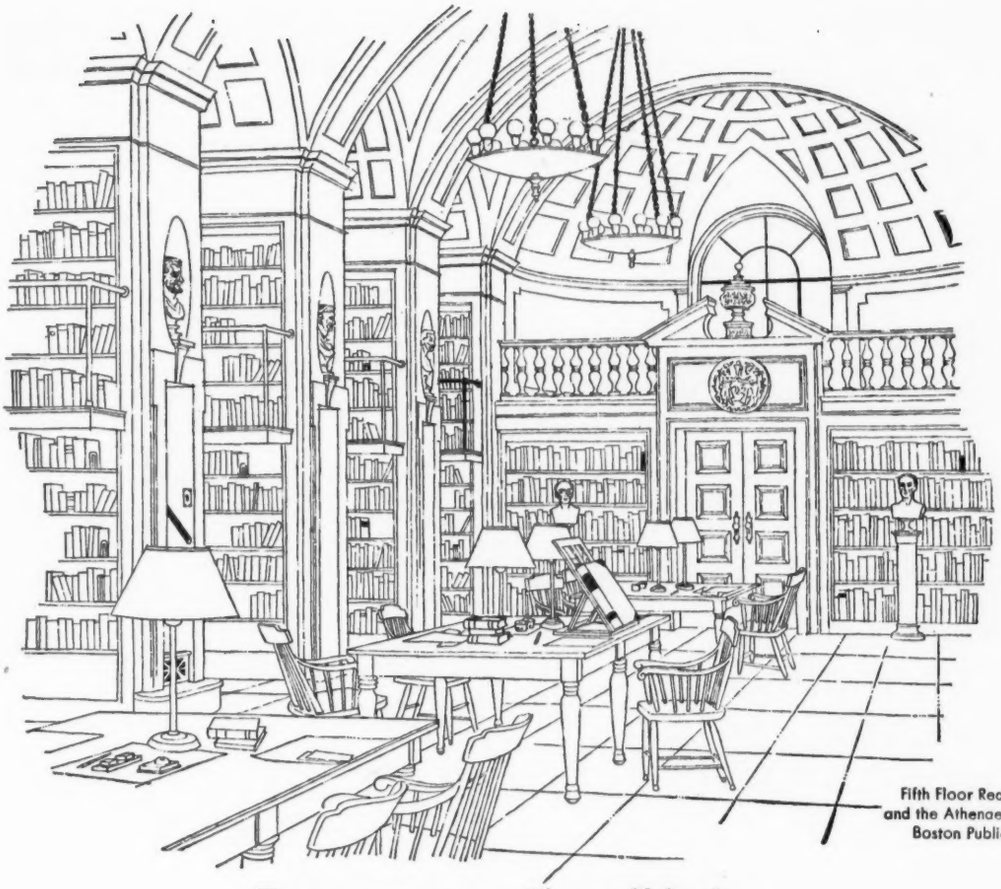
(Continued on Page 530)



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From among all antibiotics,

Obstetricians and Gynecologists often choose

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Aureomycin may be given by the oral, or in an emergency by the intravenous, route.

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Throughout the world, as in the United States, aureomycin is recognized as a broad-spectrum antibiotic of established effectiveness.

Capsules: **50 mg.—Bottles of 25 and 100; 250 mg.—Bottles of 16 and 100.**
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(Continued from Page 528)

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You and Your Business

MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION
DETROIT—September 24-25-26, 1952

WORD GETS AROUND ABOUT MSMS ACTIVITIES

What they are saying about the MSMS Public Relations program:

Samuel M. Day, M.D., Secretary-Treasurer, Florida Medical Association—"May I take this opportunity to compliment you and the officers and members of the Michigan State Medical Society on an outstanding public relations program."

What they are saying about the pamphlet, "Planning Your Career."

Sister M. Adele, Assistant Administrator, The St. Francis Hospital, Pittsburgh, Pennsylvania—"This is an excellent piece of work."

Bess Graham, Assistant Administrator, Peoples Hospital, Akron, Ohio—"We do want to commend you on a very good job in presenting the openings for workers in the medical field. Your booklet is one of the most attractive we have ever seen and we know it must be very effective in helping recruit good employes."

HIGHLIGHTS OF MEETING OF EXECUTIVE COMMITTEE OF THE COUNCIL
March 20, 1952

Sixty-three items were presented to the Executive Committee of The Council at its March 20 meeting in Detroit. Chief in importance were:

- Monthly financial reports were presented and approved. Statement on contributions to the Beaumont Memorial Fund was presented. Bills payable were inspected and payment was authorized.
- William A. Hyland, M.D., Grand Rapids, Past President and Past Treasurer of the Michigan State Medical Society, was elected as Treasurer of the Michigan State Medical Society to fill the unexpired term of the late A. S. Brunk, M.D.
- Group health and accident program for Michigan doctors of medicine. Progress report was presented by W. S. Jones, M.D., Menominee, Chairman of the Special Committee (Drs. Jones, L. Fernald Foster and Mr. J. Joseph Herbert), which was authorized to meet with insurance brokers so that a plan may be developed and presented to insurance companies; the plan will be presented to the MSMS House of Delegates in September, 1952.
- Veterans Administration Hospitals Policy. Pursuant to resolution of Washtenaw County Medical Society, approved by Executive Committee of The MSMS Council, the following Study Committee was appointed: R. W. Teed, M.D., Chairman, Ann Arbor; Gaylord S. Bates, M.D., Dearborn; W. H. Huron, M.D., Iron Mountain; J. E. Manning, M.D., Saginaw; H. Marvin Pollard, M.D., Ann Arbor; and L. A. Pratt, M.D., Detroit.
- Teaching medical ethics in medical schools—the report of the two Michigan Medical School Deans was presented and referred to the 1952 MSMS House of Delegates.
- Committee reports: (a) Finance Committee, meeting of March 20; (b) Rheumatic Fever Control Committee, meeting of February 27; (c) Meeting of Ubiquitous Hosts for Michigan Clinical Institute, March 6; (d) Hospital Relations Committee, meeting of March 7; (e) Report of Councilor G. B. Saltonstall, M.D., Charlevoix on February 17, American Medical Education Foundation Annual Meeting in Chicago; (f) Report of John R. Rodger, M.D., Bellaire, on National Rural Health Conference held in Denver, February, 1952; (g) Special Committee on Developing Model Code on M.D. Announcements—report presented by Chairman D. Bruce Wiley, M.D., and ordered published in THE JOURNAL of the Michigan State Medical Society. (See page 554.)
- Liaison Committee between Rheumatic Fever Control Committee and Child Welfare Committee: at the suggestion of the MSMS Rheumatic Fever Control Committee, the following Liaison Committee with the MSMS Child Welfare Committee was appointed: R. J. Mason, M.D., Chairman, Birmingham, Leon DeVel.

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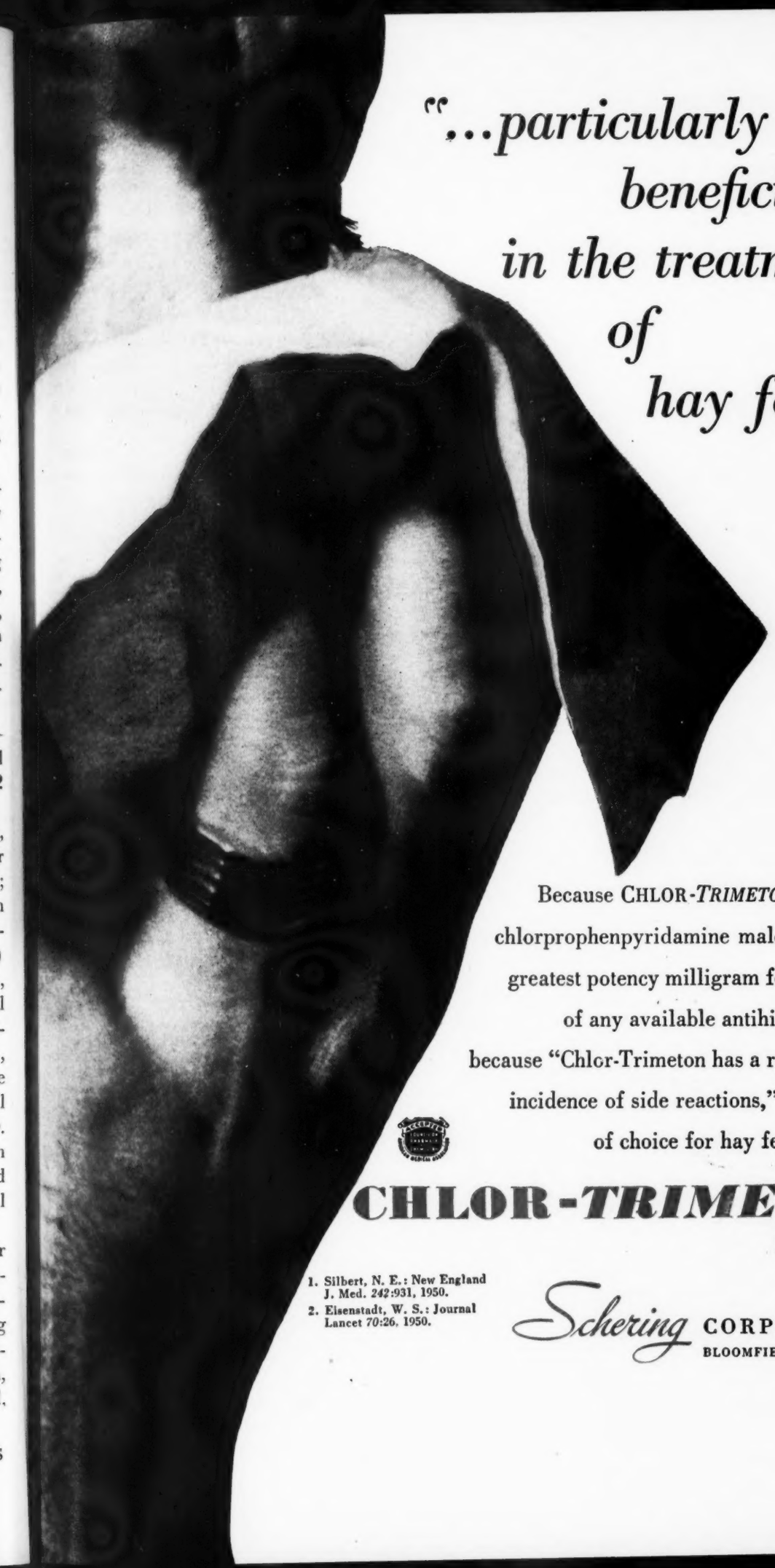

"...particularly beneficial in the treatment of hay fever."[1]

Because CHLOR-*TRIMETON*® maleate, chlorprophenpyridamine maleate, has the greatest potency milligram for milligram of any available antihistamine, and because "Chlor-Trimeton has a relatively low incidence of side reactions,"[2] it is a drug of choice for hay fever patients.

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1. Silbert, N. E.: New England J. Med. 242:931, 1950.
2. Eisenstadt, W. S.: Journal Lancet 70:26, 1950.

Schering CORPORATION
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CHLOR-TRIMETON

(Continued from Page 532)

M.D., Grand Rapids, and Frank Van Schoick, M.D., Jackson.

- The principle of a bill licensing practical nurses was approved by the Executive Committee of The Council.
- J. S. DeTar, M.D., Milan, and R. W. Teed, M.D., Ann Arbor, were selected as Delegate and Alternate, respectively, to the Michigan Health Council, as MSMS representatives.
- The House of Delegates Press Relations Committee for the 1952 MSMS Annual Session was appointed: R. H. Baker, M.D., Pontiac, H. F. Dibble, M.D., Detroit, L. Fernald Foster, M.D., Bay City, Ralph Johnson, M.D., Detroit, and J. E. Livesay, M.D., Flint.

  Chairmen and Secretaries for the Assemblies and Leaders for the three Discussion Conferences were selected.

  "Upper Peninsula Day," with luncheon, was authorized for Wednesday (Sept. 24) at the MSMS Annual Session, with W. S. Jones, M.D., of Menominee as Chairman.
- Board of United Health and Welfare Fund. This Fund requested MSMS to nominate doctors of medicine for its Board. Twelve names, selected on a geographical basis, were submitted.
- J. Milton Robb, M.D., Detroit, was appointed as Chairman of the 1953 Michigan Clinical Institute scheduled for Detroit, March 11-12-13, 1953.

  The "block system" so successful at the 1952 MCI, is to be repeated at the 1953 Institute, with surgery being featured on Wednesday morning, obstetrics-gynecology on Wednesday afternoon; cancer control on Thursday morning, trauma on Thursday afternoon; heart will again be the subject of Friday morning and internal medicine on Friday afternoon.

  Daily Discussion Conferences (question and answer periods) are to be held from 12:00 M to 1:00 p.m. with all speakers of that particular day on the platform.
- The Public Relations Counsel's report included progress report on current legislation, both national and state; on MSMS films; on "Formula For Freedom" Nights; and on TV and radio activity.
- The report of the Legal Counsel included two items, both covering matters of ethics.

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

1952

Spring	MSMS Postgraduate Extramural Courses State-wide
June 9-13	AMA Annual Session.....Chicago
June 27-28	Upper Peninsula Medical Society Annual Meeting.....Iron Mountain
June	St. Clair County Medical Society Clinic Day.....St. Clair
July 24-25	Annual Coller-Penberthy Medical Surgical Conference.....Traverse City
July 24-26	Conference on Housing of the Aging Ann Arbor
August 21	Third Annual Clinic, Central Michigan Committee, ACS Michigan Committee on Trauma, plus Michigan National Guard Medical Personnel, and Medical Society of North Central Counties Grayling
Sept. 24-26	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION.....Detroit
Oct. 8	Clara Elizabeth Fund—Genesee County Medical Society—Lectures of 1952...Flint
Oct. 9	Fourth Michigan Cancer Conference Kellogg Center, East Lansing
October or November	American Academy of General Practice of Wayne County.....Detroit
Autumn	MSMS Postgraduate Extramural Courses State-wide

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

STATE BOARD OF MEDICINE EXAMINATIONS

June 9-10-11, 1952

Ann Arbor and Detroit

Completed application with fee must be received in office of State Board of Registration in Medicine, 203 Hollister Building, Lansing, Michigan, two weeks prior to examination dates.

AAGP Holds Worthy Assembly in Atlantic City

A dramatic new page in medical meeting history was enacted during the week of March 24, in Atlantic City, when the American Academy of General Practice held its Fourth Annual Assembly. Despite a wave of intestinal influenza, the threat of a railroad strike, and two days of cold searing rain, nearly 2,000 physicians were on hand to hear and acclaim a program keyed to the broadest concepts of general practice. During the four-day meeting, the total registration was 4,292, including the doctors of medicine, residents, interns and students, technical exhibitors, guests and the ladies.

More than fifty members of the Michigan Academy of General Practice were registered at the Atlantic City session; about forty of these attended the "Michigan Breakfast" at Haddon Hall on March 26 at the early hour of 8:00 a.m.; R. B. Robins, M.D., of Camden, Arkansas, the new President of the American Academy of General Practice, was guest of honor at the Michigan Breakfast.

MICHIGAN BREAKFAST AT AAGP ASSEMBLY IN ATLANTIC CITY

NEWLY ELECTED OFFICERS AAGP

J. S. DeTar, M.D., Milan, Michigan *(center)* was re-elected Speaker of AAGP Congress of Delegates at its Atlantic City Assembly.

U. R. Bryner, M.D., Salt Lake City *(left)* is President-Elect and R. B. Robins, M.D., Camden, Arkansas *(right)* is President.

Officers of the Michigan AAGP, which stresses the patient-physician relationship, include: E. C. Long, M.D., Detroit, President; F. E. Luger, M.D., Saginaw, Vice President; R. F. Fenton, MD., Detroit, Secretary-Treasurer; J. S. DeTar, M.D., Milan, Delegate; and J. H. Schlemer, M.D., Detroit, Delegate and Parliamentarian.

Doctor DeTar was honored by being re-elected as Speaker of the House of Delegates of the American Academy of General Practice. Chosen as AAGP President-Elect was U. R. Bryner, M.D., of Salt Lake City, one of the early pioneers of the general practice movement.

In addition to the scientific meetings, the AAGP Assembly was highlighted by a large technical and scientific exhibit of 301 spaces.

Among the guest essayists were: J. W. Conn, M.D., Ann Arbor; J. S. DeTar, M.D., Milan; and AMA President, J. W. Cline, M.D., San Francisco.

Heart Beats

"Research will continue to be the very forefront of the Michigan Heart Association's unrelenting fight against heart disease," was the reassuring theme of the Heart Day talk made by F. Janney Smith, M.D., of Detroit, newly elected President of the Michigan Heart Association. "We must all realize," Dr. Smith said, "that research provides the only key for unlocking the hidden secrets of diseases of the heart and circulatory system." Dr. Smith was elected President of the Association at its Third Annual Meeting held in Detroit on March 14, 1952, in conjunction with the Michigan Clinical Institute.

Douglas Donald, M.D., Detroit *(left)* immediate Past President of the Michigan Heart Association, congratulates F. Janney Smith, M.D., Detroit, the new President of the Association, as he takes office at the Annual Heart Day Meeting held in Detroit on March 14, 1952.

Mr. Charles E. Wilson, President of the General Motors Corporation, was re-elected chairman of the Board of Trustees.

Henry L. Smith, M.D., Detroit, who has actively served on the Board of Trustees, the Executive Committee and the Program Committee of the Michigan Heart Association since its organization in 1949, was elected to the post of President-Elect at the annual meeting.

Other officers elected by the Association at its annual meeting include: Vice Presidents—Mrs. Hugh Wilson of Ann Arbor, Carleton Dean, M.D., Lansing, and Frank Van Schoick, M.D., Jackson; Secretary—L. Fernald Foster, M.D., Bay City; Treasurer—Charles T. Fisher, Jr., Detroit.

Douglas Donald, M.D., Detroit, retiring President of the Heart Association, will continue to serve on the Board of Trustees and the Executive Committee of the Association in addition to his appointment as chairman of the Membership Committee.

The following committee appointments were made by F. Janney Smith, M.D., following his election as President of the Michigan Heart Association:

Research Committee.—Franklin D. Johnson, M.D., Chairman, Detroit; Paul S. Barker, M.D., Ann Arbor; Earle Irvin, M.D., Detroit; Douglas Donald, M.D., Detroit; E. D. Spalding, M.D., Detroit.

Program Committee.—Carleton Dean, M.D., Chairman, Lansing; Paul S. Barker, M.D., Ann Arbor; Warren B. Cooksey, M.D., Detroit; Myer Teitelbaum, M.D., Detroit; M. S. Chambers, M.D., Flint; Robert E. Fisher, M.D., Bay City; C. J. Poppen, M.D., Lansing; Mrs. Hugh Wilson, Ann Arbor.

Finance Committee.—Frank Isbey, Chairman, Detroit; Charles T. Fisher, Jr., Detroit; J. William Hagerty, Detroit.

Membership Committee.—Douglas Donald, M.D., Chairman, Detroit; Milton Shaw, M.D., Lansing; Mrs. James McEvoy, Detroit.

Committee on Cardiovascular Clinics.—B. I. Johnstone, M.D., Detroit; Cecil Corley, M.D., Jackson; L. T. Colvin, M.D., Detroit.

FACTS GLEANED FROM THE HOOVER REPORT

29 agencies lend money.

28 handle welfare projects.

16 are in wildlife preservation.

50 are compiling statistics.

One agency had enough light bulbs to last 93 years.

One had 24 supervisors for 25 employees.

One bureau employs one person for every 32 under its care.

Our Federal Government today employs 2½ million people at a cost of more than $⅔ billion per month.

One out of every five citizens receives some sort of income from the government.

$1 out of about every $4 we earn goes for taxes to support the Federal Government.

And about $1 in every $10 is being wasted!

To run the Federal Government in 1952 it cost over $71 billions—$456.00 for every man, woman and child —$1,784.00 for every family.

The Beaumont Memorial

A LITTLE FROM MANY WILL BUILD THE BEAUMONT MEMORIAL

The work of the Michigan State Medical Society Beaumont Memorial Restoration Committee is showing tangible results, according to a report from Committee Chairman A. H. Whittaker, M.D., Detroit.

Otto O. Beck, M.D., Birmingham, President of the Michigan State Medical Society, points to the spot in the American Fur Company Store on Mackinac Island where Alexis St. Martin was shot, June 19, 1822. The scale model of the store reveals how the important landmark will look when it is reproduced on Mackinac Island through the activities of the MSMS Beaumont Restoration Committee and the support of Michigan doctors of medicine.

Every member of MSMS has received a personal letter from Otto O. Beck, M.D., Birmingham, MSMS President, asking for support in the restoration of the American Fur Company store on Mackinac Island as a shrine to the important discoveries of William Beaumont, M.D.

It was in that fur company store that Alexis St. Martin, a French-Canadian voyageur, was shot. Even though Dr. Beaumont held little hope for St. Martin's recovery after the accidental shooting on June 19, 1822, the hardy voyageur lived. The wound left a gaping hole in St. Martin's side. Through this cavity, Dr. Beaumont was able to observe over a period of years and to record the action of the gastric juices.

Dr. Beaumont's contributions to medical science rank with Harvey's discovery of the circulation of blood and are rated above the famed experiments by Ivan Petrovitch Pavlov which contributed to knowledge of the physiology of digestion.

Of the State's more than 5,200 doctors of medicine who received a request for assistance in the restoration project, to date 721 have contributed funds to the project which requires an estimated $40,000 to be completed on Mackinac Island. The average contribution has been $11.39. By JOURNAL press time, the fund had grown to a total of $8,213.50.

Members of the Restoration Committee report that the goal of $40,000 would be reached if each doctor of medicine in Michigan would contribute at least eight dollars.

The medical shrine on Mackinac Island would be a gift of the medical profession. It would also be a constant reminder to the thousands of annual visitors to the Island of the profession's continued effort to advance the science of medicine.

The scale model of the fur company store was exhibited at the Michigan Clinical Institute. The exhibit was staffed by members of the Woman's Auxiliary to the Michigan State Medical Society and of the Michigan State Medical Assistants Society, who distributed literature about the project and supplied information on the campaign.

Those who saw the scale model in Detroit were impressed with the dignity of the memorial which will stand as a perpetual reminder of Michigan's part in significant and inspiring medical pioneering.

Terramycin is also indicated in a wide range of

GRAM-POSITIVE BACTERIAL INFECTIONS

Lobar pneumonia • Mixed bacterial pneumonias
Bacteremia and septicemia
Acute follicular tonsillitis
Septic sore throat • Pharyngitis
Acute and chronic otitis media
Acute bronchitis • Laryngotracheitis
Tracheobronchitis • Sinusitis
Chronic bronchiectasis
Pulmonary infections associated with pancreatic insufficiency
Scarlet fever • Urinary tract infections
Acute and subacute purulent conjunctivitis
Acute catarrhal conjunctivitis
Chronic blepharoconjunctivitis not involving the meibomian gland
Abscesses • Cellulitis
Furunculosis • Impetigo
Infections secondary to Acne vulgaris
Erysipelas • Peritonitis

GRAM-NEGATIVE BACTERIAL INFECTIONS

Gonorrhea • Brucellosis
Bacteremia and septicemia
Friedländer's pneumonia
Mixed bacterial pneumonias
Pertussis • Diffuse bronchopneumonia
Post-partum endometritis • Granuloma inguinale
Dysentery • Urinary tract infections
Respiratory tract infections
Cellulitis • Peritonitis • Tularemia

SPIROCHETAL INFECTIONS

Syphilis • Yaws • Vincent's infection

RICKETTSIAL INFECTIONS

Epidemic typhus • Murine typhus
Scrub typhus • Rickettsialpox
Q fever • Rocky Mountain spotted fever

VIRAL INFECTIONS

Primary atypical pneumonia (virus pneumonia)
Lymphogranuloma venereum • Trachoma

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Cancer Comment

THE CANCER COMMITTEE OF THE COUNTY MEDICAL SOCIETY

From the inception of the cancer control program throughout the country, the responsibility of the county medical society in all local programs has been stressed repeatedly. Both the American Medical Association and the American Cancer Society have insisted that all cancer programs be approved by the respective medical society before they are placed in operation. Wherever county medical societies have cancer committees—and there should be such a committee in every county medical organization—these committees have definite responsibilities to the community health organizations, public and private, as well as to their own society.

In too many instances, local medical societies have neglected to appoint cancer committees or those appointed have not taken their responsibilities and duties in the serious manner their appointment calls for. Local cancer programs have had the tacit approval of this medical committee without serious examination of their objectives or practical organization.

To overcome these objections, to point out their responsibilities to all local health organizations, and to co-ordinate more closely the local cancer program for the greatest community good, the Cancer Control Committee of the Michigan State Medical Society is issuing a pamphlet entitled "The Role of the Cancer Committee of the County Medical Society in Cancer Control." The pamphlet is patterned after a similar publication of the California Cancer Commission and points out the opportunities as well as the responsibilities of local medical cancer committees in co-operation with local public and private health agencies in the general cancer control program.

Professional education is discussed in detail and the opportunities offered by medical society and hospital staff meetings, cancer conferences of different types, cancer films and cancer literature as educational media are emphasized.

Cancer reference panels for the purpose of seeing that no cancer patient, regardless of financial or other difficulty, is denied the best service the community affords, are recommended as desirable medical services when they function in keeping with approved local medical plans.

Cancer diagnostic and/or treatment clinics are discussed and the organization of such additional clinics in strategic hospital centers to augment the fifteen clinics now in operation in Michigan is recommended.

Cancer detection examinations are being stressed more and more as the best means for finding early and curable cancer and this brochure urges that every doctor's office should be a cancer detection center. The Hillsdale Plan for Tumor Detection is offered as an outstanding example of a successful cancer detection program initiated and carried out by a county medical society in co-operation with the local health department.

The relation of the County Cancer Committee to the local health department is stressed as is the relationship to the local unit of the American Cancer Society. It is in this latter relationship that the Cancer Committee finds some of its most important responsibilities. The interest of lay workers in this program needs to be evaluated carefully and, when necessary, their emotional enthusiasm closely supervised and controlled to prevent undue emphasis being placed on the cancer problem that will increase rather than dispel fears of this disease. The Cancer Committee can assist greatly in interesting influential laymen in the local program, thus giving it leadership and stability.

Education of the laity is a prime responsibility of the medical profession and the local Cancer Committee is urged to provide leadership in this field. A speakers bureau is recommended, so that all speaking engagements will not fall on the few members of the committee. There is a place in this control program for every physician and it is the local Cancer Committee's responsibility to see that each physician makes his contribution in the most effective manner.

The text of this pamphlet closes with this summary:

"With these duties and responsibilities, the Cancer Committee becomes one of the most important committies in any County Medical Society. This committee is charged with the leadership of one of the

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Federal Medicine

ANOTHER STEP IN SOCIALIZED MEDICINE

Hospitalization for insured persons over sixty-five, their dependents and survivor beneficiaries is recommended by the Social Security Administration in its 1951 annual report. The report cited as an example of need that only one of twelve aged couples receiving hospitalization have hospital insurance. This information was obtained from a recent survey made in two large cities by the Social Security Administration.

The report also recommended a program of disability and sickness insurance, estimating that a full social insurance program including such benefits could be financed by a compulsory 6 per cent payroll deduction tax. The report indicates that in 1951 about 77 per cent of the working population were under the old-age and survivors insurance program. Another 9 per cent were covered by the railroad retirement system and by separate programs of federal, state and local governments. Benefit payments of the survivors insurance program during the fiscal year ending in June, 1951, amounted to $1,498,000,000. The administrative expenses were $70,000,000. Contributions amounted to more than $3 billion.

Recipients of public assistance (federal-state programs on a matching basis) number more than five million persons. Public assistance includes programs of: old-age assistance, aid to dependent children, aid to the blind, aid to the permanently and totally disabled, and general assistance. Largest of these programs is old-age assistance, which reached a peak of 2.8 million recipients in September, 1950. The latest amendment to the social security program permits federal participation in the cost of state-provided medical care for needy individuals. Commenting on the advantages of the recent amendment, the report said, "Experience under this amendment, although limited in scope, will help point the way to further developments in provisions of needed medical care to low-income groups."

It was recommended that the insurance program be extended to protect members of the armed forces, and suggested that military personnel be credited with a free contribution based on an assumed $160 monthly wage.

The same report covered the operation of the Children's Bureau. Some major highlights are: (1) 171,000 mothers attended prenatal clinics operated by states with federal assistance; (2) more than 59,000 women were given postpartum medical examinations; (3) more than 258,000 expectant mothers received nursing services; (4) there were 723,000 infants and pre-school children who attended medical conferences; (5) 1,100,000 children received public health nursing services; (6) 2,894,000 children were under the program of nursing visits in behalf of school children; (7) 215,000 crippled children received physician and related services during the year; and (8) 40,000 children received hospital-patient care—the average length of stay was about thirty-six days.

The Children's Bureau recommended that an emergency maternity and infant care program for wives and infants of enlisted men of the Armed Forces be inaugurated. It suggested that the program be somewhat similar to the program conducted during World War II.—*AMA Washington Bulletin,* April 10, 1952.

GOVERNOR WARREN AND SOCIALIZED MEDICINE

Governor Earl Warren of California appeared over television, following a speech he made in Boston, on Wednesday, February 6, 1952. He was interviewed by Donald I. Rogers, editorial staff, *New York Herald Tribune,* and William Bradford Huie, editor of the *American Mercury,* with particular respect to his views on Socialized Medicine, State Socialism and the Welfare State.

HUIE: Now, sir, as the first question, it's often said our Eastern and Middle Western Republicans wonder how it is that you get so many Democratic votes. Now, do you think that you are the same kind of Republican that people are in the East and in the Middle West?

WARREN: I think that I am. I think our people perhaps are a little less party-minded out in the West than they are in the East and the Middle West, but Republicans in our part of the country think the same and act very much the same as they do in other parts of the country.

* * *

ROGERS: Would you describe yourself as a socialist?

WARREN: Oh, in no sense of the word. I have an abomination for socialism. I believe that our system is the greatest system that's ever been devised by man. But I believe that some of these people who use the word socialism very lightly these days and very often are unable to distinguish between socialism and social progress. You spoke of the speech that I made last night at Boston. In preparing that speech I found a little expression of Abraham Lincoln who—that reminded me of such people. He spoke of the type of thinking that could not distinguish between a horse chestnut and a chestnut horse.

ROGERS: To be specific, sir, would you say that, for instance, socialized medicine is social progress or socialism?

WARREN: No, I would think socialized medicine is socialism, but I don't believe in socialized medicine. I do believe that there can be social progress made so far as medical care is concerned. I believe that the cost of medical care has become so high that it is moving away from the person of average income, and I believe it is

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POLICIES AND PROCEDURES ADOPTED BY THE DEPARTMENT OF DEFENSE IN IMPLEMENTING PUBLIC LAW 779, 81st CONGRESS

At the outbreak of the Korean incident, the only source of physicians and dentists available to the military services, other than those already on duty, was the reserve components. At that time the rolls of the active and inactive reserve components of the Army could not supply sufficient medical and dental officers, particularly in the junior grades. Only a very small number of medical and dental ASTP participants had enrolled in the Army Reserve. The Navy, on the other hand, was in a much better position because the majority of the medical and dental participants in the V-12 Program were members of the Naval Reserve. The Air Force was in a position similar to that of the Army, with the exception that it was not an independent department during World War II and, therefore, had not sponsored an educational program.

To insure an adequate number of physicians and dentists to meet military requirements, Public Law 779 (the Doctor Draft Act) was enacted. Under its provisions members of reserve components were specifically exempted from registration by the following:

> "Section 4i(1) . . . No such person who is a member of a reserve component of the Armed Forces shall, as long as he remains a member thereof, be liable for registration and induction under this subsection, but nothing in this subsection shall be construed to affect the authority of the President under any other provision of law to call to active duty members and units of the Reserve Components."

The effect of relieving members of reserve components from the obligation to register exempted all participants of the Navy V-12 Program, who were members of the Navy reserve component. This comprised a large group of physicians and dentists who would have been members of the Priority I group if they had not been so exempted. Further, in the Section quoted, specific authorization to call reserve personnel to active duty is reaffirmed and this is interpreted as indicating the intent of Congress that members of reserve components be so utilized at the discretion of the President.

Extensive and earnest study was given to the most equitable and satisfactory method of bringing physicians and dentists to active duty from the increased sources that became available after the enactment of Public Law 779. It was believed, and it still is believed, that the interests of all concerned are best served by the program which was adopted and which has been followed. It consists of assigning a priority classification, paralleling that of Selective Service, to all reserve medical and dental officers which they would have had under Selective Service had they not been exempt from registration and then calling them to active duty in accordance therewith. Thus, Priority I type reserves which includes Priority I registrants who have indicated a willingness to accept commissions are called up before Priority II's are called. It permits the Navy to utilize its reserves who were obligated to serve and it insures that the Army and the Air Force will have sufficient personnel. It also has the advantage of reducing to a minimum the necessity of actually drafting doctors by affording those who are vulnerable the opportunity of accepting commissions rather than having to face the stigma of being inducted involuntarily.

At the plan has operated, the Navy up to the present time has filled its requirements from its reserve components. The Air Force, with few exceptions, has had a sufficient number of requests for commissions and voluntary applications for extended active duty from Priority I registrants to meet its needs. Except for one month, July, 1951, the Armed Forces has been able to fill its requirements for physicians by involuntarily ordering to duty Priority I registrants who have indicated a willingness to accept commissions.

You are well aware of the advantages to the interests of the national welfare in having the local and State Advisory Committees of the Selective Service System advise the military departments on the essentiality of reserves destined for calls to duty. This arrangement has proved its merit and the departments have co-operated with it in a satisfactory manner even though the obligation to do so in the cases of reserve personnel is not prescribed under the provisions of Public Law 779.

It is true that there are some recalcitrant Priority I registrants who refuse to accept commissions and are escaping duty as long as a sufficient number to meet the requirement do volunteer. Their number, however, is relatively small. According to Selective Service statistics for January 31, 1952, of an original 10,785 Priority I living registrant physicians, 1,094 remain immediately available; and of an original 3,928 Priority I registrant dentists, 620 remain immediately available. Since January 31, 1952, the available Priority I dentist pool has been reduced by the induction calls for 335 dentists in April, 1952, and 175 dentists in May, 1952.

(Continued on Page 552)

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Formula For Freedom Nights

At County Medical Societies

Date	Place	Speakers
Dec. 18, 1951	Kalamazoo Kalamazoo Academy of Medicine	R. J. Hubbell, M.D., Kalamazoo Otto O. Beck, M.D., Birmingham L. Fernald Foster, M.D., Bay City D. Hale Brake, Lansing State Treasurer Hugh W. Brenneman, Lansing
Jan. 15, 1952	Grand Rapids Kent County Medical Society	L. Fernald Foster, M.D., Bay City Senator Carlton H. Morris, Kalamazoo Hugh W. Brenneman, Lansing
Jan. 22, 1952	Saginaw Saginaw County Medical Society n	L. Fernald Foster, M.D., Bay City J. E. Livesay, M.D., Flint H. B. Zemmer, M.D., Lapeer L. C. Harvie, M.D., Saginaw Hugh W. Brenneman, Lansing
Feb. 5, 1952	Big Rapids Mecosta-Osceola-Lake County Medical Society	L. Fernald Foster, M.D., Bay City Senator Milo A. Johnson, Greenville Hugh W. Brenneman, Lansing
Feb. 12, 1952	Owosso Shiawassee & Clinton County Medical Societies	L. Fernald Foster, M.D., Bay City Senator James M. Teahen, Jr., Owosso Hugh W. Brenneman, Lansing
Feb. 14, 1952	Ann Arbor Washtenaw County Medical Society	L. Fernald Foster, M.D., Bay City Bradley M. Harris, M.D., Ypsilanti D. Hale Brake, Lansing State Treasurer Hugh W. Brenneman, Lansing
Feb. 15, 1952	Muskegon Muskegon County Medical Society	L. Fernald Foster, M.D., Bay City William C. Vandenberg, Lansing Lt. Gov., State of Michigan Hugh W. Brenneman, Lansing
Feb. 19, 1952	Mt. Pleasant Gratiot-Isabella-Clare County Medical Society	L. Fernald Foster, M.D., Bay City Hugh W. Brenneman, Lansing
March 4, 1952	Battle Creek Calhoun County Medical Society	L. Fernald Foster, M.D., Bay City Senator Creighton R. Coleman, Marshall Hugh W. Brenneman, Lansing
March 7, 1952	Holland Ottawa County Medical Society	L. Fernald Foster, M.D., Bay City Senator C. H. Geerlings, Holland Hugh W. Brenneman, Lansing
March 18, 1952	Port Huron St. Clair and Sanilac County Medical Society	L. Fernald Foster, M.D., Bay City John B. Martin, Jr., Lansing Auditor-General, State of Michigan Hugh W. Brenneman, Lansing
March 19, 1952	Bay City Bay-Arenac-Iosco County Medical Society	D. Hale Brake, Lansing State Treasurer J. E. Livesay, M.D., Flint Hugh W. Brenneman, Lansing
April 1, 1952	Monroe Monroe County Medical Society	Bradley M. Harris, M.D., Ypsilanti D. Hale Brake, Lansing, State Treasurer Hugh W. Brenneman, Lansing
April 15, 1952	Flint Genesee County Medical Society	L. Fernald Foster, M.D., Bay City John B. Martin, Jr., Lansing Auditor-General, State of Michigan Joseph R. Hainline, Detroit
April 24, 1952	Hastings Barry County Medical Society	L. Fernald Foster, M.D., Bay City
April 24, 1952	South Haven Van Buren County Medical Society	L. Fernald Foster, M.D., Bay City Senator G. Elwood Bonine, Vandalia

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Formula For Freedom Nights

At County Medical Societies

(Continued from Page 550)

Date	Place	Speakers
May 6, 1952	Traverse City Grand Traverse-Leelanau-Benzie County Medical Societies	D. B. Wiley, M.D., Utica D. Hale Brake, Lansing, State Treasurer Hugh W. Brenneman, Lansing
May 27, 1952	Genesee County Medical Society Woman's Auxiliary	L. Fernald Foster, M.D., Bay City
May 29, 1952	Dowagiac Cass County Medical Society	L. Fernald Foster, M.D., Bay City Senator G. Elwood Bonine, Vandalia Hugh W. Brenneman, Lansing
June 5, 1952	Ann Arbor Michigan Tuberculosis Association Annual Meeting	L. Fernald Foster, M.D., Bay City D. Hale Brake, Lansing, State Treasurer Hugh W. Brenneman, Lansing
June 17, 1952	Lansing Ingham County Medical Society	To be announced in June Journal
June 27, 1952	Iron Mountain Annual Meeting, Upper Peninsula Medical Society	To be announced in June Journal

POLICIES AND PROCEDURES ADOPTED BY THE DEPARTMENT OF DEFENSE

(Continued from Page 548)

When all Priority I type reserves have been called to active duty, or deferred for acceptable reasons, the Selective Service System will be requested to bring the remaining Priority I registrants into service before any Priority II type reserves are called up. It is anticipated that this will occur within the next six months; hence, the recalcitrant ones are only delaying their service until all the Priority I registrants who have accepted commissions are called up. It is a matter of opinion whether this is to their advantage. If the military emergency should cease to exist before they are inducted, they will have escaped military duty. On the other hand, if the emergency continues, they will be forced to come into service at a later date and will have to serve after their more willing contemporaries are returned to civilian life and become re-established in their practices.

It has been the desire of the Department of Defense to comply with the intent of Public Law 779. It is believed that as far as practicable this has been done to the best interests of the individuals and of the Armed Forces.

NEW CRITICAL DEFENSE AREAS

Most recently designated "critical defense areas," eligible for special federal assistance for hospitals and other community facilities, include the following: Troma, Calif.; Barstow, Calif.; Orlando, Fla; Cobalt, Idaho; Gary-Hammond, East Chicago, Ind.; Parsons, Kan.; Lawrence-Olathe, Kan.; Indian Head, Md.; Bedford, Mass.; Oscoda, Mich.; Altus, Okla.; Umatilla-Hermiston, Ore.; Newport, R. I.; Charleston, S. C.; Smyrna, Tenn.; Rockdale, Tex.; Del Rio, Tex.; Arlington, Wash.

HOUSE INCLUDES HOSPITAL FUNDS IN DEFENSE AREAS APPROPRIATIONS

In passing a supplemental appropriations bill, the House reduced the request for defense community facilities from $25.7 million to $4 million, and specified that none of the money could be used for recreational purposes, for day care functions or for additional administrative expenses. Under certain conditions, funds could be used for construction and operation of hospitals in defense-impacted areas. The Committee report made no suggestions as to division of the money. However, in testimony at the hearings, spokesmen for Division of Hospital Facilities (PHS) asked that about half of the then proposed figure of $25.7 million be allocated for hospitals and health centers. Already approximately 160 areas have been officially designated as "critical." Of these, six have submitted evidence to show hospital facilities are urgently needed. However, the PHS does not have complete information on hospital needs in defense areas, and does not plan to issue application forms until funds actually have been appropriated.

Model Code for M. D. Announcements

Comments by D. B. Wiley, M.D., Utica, Chairman of the MSMS Committee on Development of Model Code for M.D. Announcements.

The Council of the Michigan State Medical Society, at its September 23 meeting in Grand Rapids, was asked for an opinion on the matter of ethical practices in advertising by doctors of medicine, particularly as it pertained to the use of neon signs and bowling teams with the name of the doctor or clinic on the shirts of the bowling team.

The Council took the following action on the matter: "The Council of the Michigan State Medical Society disapproves of publicity of any type by any member which is not in keeping with the dignity of the profession." The Council authorized the creation of a committee to compile a model code covering recommended practices in reference to physicians' signs, newspaper, mail and radio announcements and other forms of advertising of any type.

The Committee on Development of a Model Code for M.D. Announcements found that many of the county medical societies have established regulations governing the type and size of physician's signs, and the type of other forms of announcements which may be used. It was the consensus of the committee that problems of ethics in the last analysis are decided upon according to the principles of Medical Ethics of the American Medical Association.

The Principles of Medical Ethics of the American Medical Association provided the following quotations which answered the questions under discussion.

1. In section 3, on page 4:
"The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual."

2. In section 4, on pages 4 and 5:
"Solicitation of patients, directly or indirectly, by a physician, by groups of physicians or by institutions or organizations is unethical."

3. In section 5, on page 6:
"The publication or circulation of simple professional cards is approved in some localities but is disapproved in others. Disregard of local customs and offenses against recognized ideals are unethical."

The Committee on Development of a Model Code for M.D. Announcements at its meeting of January 26, 1952, formulated the following report as given in the minutes of that meeting, which have been approved by the Executive Committee of MSMS.

From Minutes of Meeting of Committee on Development of Model Code for M.D. Announcements, January 26, 1952.

Neon Signs.—The item of clinics with neon signs and bowling teams with names of the clinic on the shirts was discussed by all present. Portions of the Principles of Medical Ethics of the American Medical Association were read. After discussion, it was the sense of the committee that the sponsoring of a bowling team or any other athletic team for the purposes of advertising is unethical. Donations to support athletic teams or events is ethical, and this applies equally to individuals and clinics as set forth in the Principles of Medical Ethics of the American Medical Association.

A neon sign or any other type of advertising of the name of a doctor or a clinic must conform with regulations of the local County Medical Society. "Disregard of local customs and offenses against recognized ideals are unethical." (AMA Code of Ethics).

It is the sense of the Committee that the problem of advertising of physicians or clinics is a local one, and no hard and fast regulations can be set down on a State-Wide basis.

This report is published upon instruction of the Executive Committee of The Council MSMS, February 20, 1952.

THE CANCER COMMITTEE OF THE COUNTY MEDICAL SOCIETY

(Continued from Page 544)

most important health programs in the county. While service on the Cancer Committee entails a large amount of effort and responsibility, it offers the finest opportunity of service to the public and to the County Medical Society."

The pamphlet is being placed in the hands of all local medical society officers and their cancer committees, all local health officers and commanders of local units of the American Cancer Society. In limited numbers, copies will be available to others interested.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of the Council

VOLUME 51 MAY, 1952 NUMBER 5

The Best of Life

By A. M. Smith

Detroit, Michigan

Grow old along with me!
The best is yet to be,
The last of life, for
which the first was made.

—Browning

HOW MANY of the more than 20,000,000 elderly people in this land of freedom and abundance feel that they are enjoying the best part of lifetime?

How many past the busy years of careers, jobs and home-making feel that there is still a place in the world for them?

Past the days of routine work, either because of feebleness or just laid aside because they cannot, like Joshua, command the sun to stand still when they reach the age of three score and ten, how many look to the sunset of life with happy calm, and how many live in daily dread of tomorrow?

How many find themselves—or believe they are—an added burden on the families of their sons and daughters and wish they might have homes of their own where the thought of being a burden to others would not plague them by day and cause sleepless nights when old folks should have peaceful sleep and happy dreams—if any!

Thousands of court records and family histories compiled by medical men indicate beyond doubt that the mental borderline of a large proportion of elderly people is due to their anxiety while trying to adjust their old age to family life. In millions of cases, happy adjustment of elderly folk to continued living in their children's homes is impossible because of economic and other factors, though grandmother and grandfather are loved and revered by sons and daughters and grandchildren. The elders need, and richly deserve, the comfort, peace and happiness of home life as they approach the "valley of the shadow."

No such homey existence awaits the old folk in the general type of institution to which millions are committed, however arduously the management may strive to create "home atmosphere" in a beehive structure nearly in the pattern of a county jail. In such institutions, restraint of activity, confinement to single rooms or wards, and restriction to scheduled visits to recreation rooms of limited space are necessarily the rule for care of large numbers of "inmates." Freedom is denied them to wander about as they did in the homes they left.

This is not to condemn outright the thousands of public hospitals spotting this land of plenty. In a way, it is a blessing that there are provided at public expense the institutions where the feeble aged and the borderline, or over-the-line, mental cases may be kept with reasonable safety to themselves and their families. On entering, they become "cases," not personalities. At home, grandmother was the grand personality!

It is admitted that with the limited financial support and kind of physical facilities provided by legislatures, virtually all of these institutions do the best they can to give the millions of inmates good physical care and mental rehabilitation. But the general concept of public care of the ailing or feeble, whose families are unable to care for them, is basically wrong. It is lagging only a step in advance of the old insane asylum and poor house. These hospitals are not *homes*. Unless the elderly

A. M. Smith is an honorary member of the Wayne County Medical Society (1933). For twenty-four years he was a medical writer for the *Detroit News*.

patient is incurably insane, what is needed is a real home, home care, home atmosphere, home happiness and surcease of gnawing anxiety about being a burden on the family.

There are hundreds of "convalescent" and "rest" domiciles (attractively advertised as "homes") established as money-making enterprises where the ailing and aged may get board, lodging and what emergency medical care is needed. In most of them, real home conditions are either wholly lacking or of minimal resemblance.

There are hundreds of private and sectarian mental hospitals open to the psychopathic and to others who need prolonged rest or convalescence, or separation from their families. The fact that many of them are accredited by states and medical societies augurs well for the professional care inmates may have as needed. But few of them are capable of providing the home feeling which the feeble aged need more than any other medicine. The physical lay-out of these "hospitals" and "retreats," whether privately or publicly sustained, and the label "mental hospital," even if the institution were named "Angels' Rest," cast a pall over the mind of anyone sane enough to think about buildings to live in and human contacts.

Elderly people who have reasonable possibility of being cured of psychoses, and the clear-minded elderly folk whose family conditions offer no promise of happiness, comfort and adequate care, need the nearest possible duplicate of home life they created and sustained when they were happy, busy, young fathers and mothers. No other kind of residence is worthy of the concept, "home for the aged."

Until legislatures provide means of establishing as many homes of this character as may be needed, to supplement the very few privately owned which conform to this type, there will be a wide gap between what is and what ought to be in sound public welfare, and no reduction in rate of mental undoing of the aged and of their untimely death.

How many approaching old age in the frame of society today feel that "the best is yet to be"? Many have lost their loved mates with whom they worked, laughed, sorrowed and rejoiced through the long years. But that is a contingency faced by mates and lovers, young and old, and it needs be—and is natural—that faith wreathed by happy memories should brighten the way ahead.

Do the social planners, the welfare engineers, the sponsors of homes for the aged realize that the years of the old folk should be the "best . . . the last of life, for which the first was made"? The millions of the aged in institutions where they are regimented like robots, cut off from the atmosphere and happiness of real homes, provide the answer: "No!"

The social doctrine by which care of the aged is generally directed in institutions is that old people are useless, a burden to their families and society; that they have finished "real life," have had their share of usefulness and happiness, and henceforth have a right only to food, to medical care if they are actually suffering, to sedatives instead of a calm and happy mind to give them sleep, to a room to fend against the weather and to prevent them, in their longing for real companionship, from molesting other "inmates," and to a bed to sleep in—until the good angel puts them under the sod.

The poet was not dreaming or painting rainbows when he declared that old age is the best of life, for the years gone by have built wisdom, have stored up knowledge, rich memories, long retrospect with its prophetic vision for the guidance of the young generations still just experimenting with Life.

"The best . . . the last of life, for which the first was made" is a profound psychological axiom to which social planners and lawmakers give scant attention. Politicians are concerned with the community, state and national pocketbooks—as they should be, if they are good bookkeepers. But their attention has not been directed to the full-grown soul of humanity, the hearts and minds of the aged.

No, the politicians and legislators are not heartless. They have not yet reached the high level of including efficient guardianship of the potential beauty, happiness and usefulness of old age in the agenda of legislative action. Someday they will meet the challenge to clear the way for normal peace and contentment of the very best of society, the old folk—the best, for these have gathered years of wisdom, learned the pitfalls to avoid, tasted and thrived on the sweet companionship of home. They have grown to full stature in gentleness and kindliness. Yet, by the thousands and for whatever reasons, they need to be transplanted, but without pruning away the tendrils that bind their hearts to "home."

Dynamic Therapeutics in Chronic Disease

By Howard A. Rusk, M.D.
New York, New York

MEDICINE'S number one problem is no longer the acute, communicable diseases which claimed their victims with dramatic swiftness, but is the slow and insidious processes of the chronic diseases and the disabilities which they leave in their wake. Here, as in the battle against infectious disease, the first line of defense is the general practitioner.

One of the principal causes of the increasing prevalence of chronic disease has been the great advances in medical and surgical care which have prevented death and produced an aging population. Two thousand years ago the average length of life was 25 years; at the turn of the century, it was 49; recently compiled 1948 mortality statistics of the National Office of Vital Statistics show the average length of life in the United States has increased to 67.2. The average length of life of white women has now reached 71 years —that of white men, 65.5. As our population becomes older, it can be expected that the incidence of chronic disease and its resultant physical disability will increase correspondingly; studies indicate the higher the age group, the greater the percentage of chronic disease and disability. In the National Health Survey 1935 to 1936, the following incidence rates per 1,000 persons were found of persons with a chronic disease or impairment on a given day: over 65 years of age, 515; aged 45 to 64, 309; aged 20 to 44, 177; aged 5 to 19, 70; and under age 5, 34. Rates for total and permanent disability per 1,000 population were: over age 65, 75; aged 45 to 64, 22; aged 20 to 44, 8; aged 5 to 9, 4; and under age 5, 1.6.

In the twenty-five-year study that the U. S. Public Health Service has conducted among 2,000 white families in the town of Hagerstown, Maryland, it was found that at 25, about 35 of every 1,000 persons have some chronic illness or some major disability; at 45, the rate gradually rises to about 100 chronic cases in 1,000 men and women. After that, there is a much steeper climb, with nearly 250 out of 1,000 chronically ill at 60. At 80, more than half of the group needs regular medical care; and at 90, the rate is more than 900 per 1,000.

Lacking specific measures in the cure of many of the chronic diseases, medicine must look to rehabilitation to teach those afflicted by disability to live and to work as effectively as possible. Until medicine finds the specific answers to the problems of the diseases of the heart and circulation, rheumatic fever and arthritis, cerebral palsy, multiple sclerosis, poliomyelitis, and the other crippling diseases, we must utilize the techniques of physical rehabilitation, psychology, social service, vocational counseling, and the auxiliary specialties to teach the disabled to live within the limits of their disabilities but to the full extent of their capacities.

Although we have in this country the finest institutions in the world for medical care and for vocational training, outside of the military services and the Veterans Administration there are but a small handful of civilian agencies and organizations equipped to provide for the patient with a physical disability the necessary retraining in physical skills which is a requisite for later vocational training. In the past, the physician has thought too much about the physiologic and clinical aspects of the patient's disability. The vocational counselor too frequently has thought only in terms of physical skills which could be utilized vocationally. Between the two, however, there is a wide area through which most physically handicapped persons must go when their medical care is completed but before they are ready to undergo vocational training. In this area lies the physical retraining in skills necessary for the carrying on of the activities inherent in daily living and common to all types of work.

Except in a few isolated instances, the physically handicapped person must be retrained to walk and travel, to care for his daily needs, to use normal methods of transportation, to use ordinary toilet facilities, to apply and remove his own prosthetic devices, and to communicate either orally or in writing. These are such simple things that they

(Continued on Page 610)

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Presented at the sixth annual Michigan Clinical Institute, Detroit, March 12, 1952.

EDITOR'S NOTE: Dr. Rusk spoke extemporaneously. We are glad to publish this condensation of his remarks.

Health Requirements of the Aging Population

By Warren B. Cooksey, M.D.
Detroit, Michigan

SO MUCH IS BEING written these days regarding the many aspects of health care as it relates to an ever increasing number of aged persons in our population that it is not easy to choose any one aspect of this rather complex situation for review and discussion. In fact, I have found myself considering, for the purpose of this paper, several interesting aspects of illness in older people. While on the whole there is little medical difference whether we are dealing with a forty-year-old patient as contrasted to a sixty-five-year-old, nevertheless one does see a few somewhat unusual features of illness as they relate to older people. Some years ago, I was very much intrigued by a group of cases I was able to collect in which there was a considerable masking of unmistakable hyperthyroidism in older people[3] who came to me largely because of gastrointestinal manifestations. Since the incidence of hyperthyroidism in Michigan has been decidedly less in recent years, I have seen very few of these cases, and so such a discussion at this particular time would certainly not be profitable. I note in a recent issue of the *Journal of the American Geriatrics Society* an article by Kimble and Stieglitz[4] on the rather frequent occurrence of mild cases of hypothyroidism that had been discovered by searching carefully for such a condition in a group of older people. This could well be an important feature of the chronic illness and lack of vigor in the aged that is sometimes overlooked and may well have an important bearing on the progressive problems of arteriosclerosis in this group. I am sure that we have all seen conditions in which mild nutritional deficiency or relative degrees of avitaminosis have been shown to be present when more careful attention is taken to diet or supplementary vitamin feedings have been instituted. I have had several experiences in which lethargic and even confused older people have been rendered much more alert and mentally clear by a more careful attention to diet, and especially where administration of adequate vitamin B complex supplements had been started. The problem of diabetes in older people also presents some features not altogether common to diabetes in younger people. For the most part, however, diabetes in the elderly person is apt to be of the more mild type, and if one can obtain good dietary regulation and insulin is properly administered when needed, the elderly diabetic is not a difficult or complicated problem. In other words, as I have reviewed the various diseases as they relate to older persons, it has seemed to me that it might not be nearly so profitable for our consideration here to discuss the purely medical aspects of care as it would be to discuss the wider aspects of this problem to which we physicians can contribute so much and for which we are so largely responsible in extending life expectancy to its present high level. There are, in fact, extremely important and controversial issues which have arisen because of the new vast numbers of older persons in our society. We physicians must not fail to take our part in necessary adjustments that need to be made.

A very important consideration that I would like to discuss briefly is the concept that geriatrics is something set apart in the field of medicine; that possibly even a specialty of geriatrics should be created for the benefit of those who might devote their lives exclusively to this field of medical endeavor. There is nothing concerning the problems in the direct care of the aged, from the medical viewpoint, that I would feel more dogmatic about, than the idea that there should be geriatricians as medical practitioners. The care of the aged population, it seems to me, is the responsibility of all of us in the healing arts and positively must not be confined to any narrow group of persons who have set themselves up as specialists in this field. I was delighted to hear a junior medical student in the Wayne University Medical School recently, when discussing his major interests for the future, state that he really believed he was more interested in the field of internal medicine than any other. However, he said he would so much prefer being an internist who would care for his patients from the cradle to the grave. If every single one of us in medicine does not share the responsibility of caring for our older people in a thoughtful and comprehensive way, I can see no hope that these older people will have the care they need. The greater burden of responsibility at present rests upon the general practitioner who is able to know his people and see them in their homes, and thus be able to advise

most intelligently regarding the problems of older patients. Certainly the internist is seeing increasingly larger numbers of old people in his practice, so that very often 50 per cent of his hospital patients are older people. Few physicians indeed are likely to want to care only for the elderly patient because of the exacting and time-consuming nature of such a practice, not to mention the lack of tangible results from one's efforts. All of us therefore must bear this responsibility.

It is my belief that we physicians have a special and tremendous responsibility in giving advice to our individual communities on the many problems involved in the care of the aged. In this community, and I am sure it is not much different in any of the other communities of our state, a major problem involves the care of the bedridden aged. Certainly not a week passes but that I am confronted in one way or another with the problem of helping to place some bedridden older person in facilities where good care can be provided at a cost the patient can afford. Many approaches have been made to this problem, as we physicians well know. Sheer necessity has created the so-called nursing home, and because they are relatively small institutions and not fully economic, the cost of care in these homes has been relatively high. We have fifty-six such homes in metropolitan Detroit, and they need all the co-operation we physicians can give them. It is most encouraging that there is an association of nursing homes in the state, and this association has raised the standards of care significantly. In the average older persons' home, and we have eleven fairly good-sized ones in Detroit, no bedridden aged person can usually be given care. Most of these homes simply do not have the facilities and are undoubtedly afraid of the expense incurred in attempting to provide such care. We have two exceptions to this rule in Detroit: the Jewish Home for the Aged, and the Arnold Home. In the city of Detroit, I am sure that we could easily make use of four or five more homes such as these two, where ambulatory old people are given custody and completely bedridden old people are also cared for. In my judgment, the fully integrated and complete care of an older person such as is given at the Jewish Home for the Aged is not excelled by anything anywhere in the United States. Here those older people who can be around and contribute to the maintenance of the institution and to their own care, are given every opportunity for so doing. Numerous kinds of occupational and diversional activity is provided, and should the older person become bedridden, or should he be admitted as a bedridden patient, a fully equipped nursing service is provided which does not attempt to duplicate the general hospital, but is entirely adequate for the care of these sick old people. At the Jewish Home where a total of 200 beds are available, there are often 75 to 100 beds occupied by the non-ambulatory persons. The nursing care in these two institutions has been simplified and yet is entirely adequate. It has been astonishing to me how fine the care has been and how low the relative cost per person has continued to be over the years in these two homes. I understand at the present time that the average cost per person in the Jewish Home for the Aged is in the neighborhood of $125 per month, while at the Arnold Home it averages about $105 per month. It would be most desirable if every major community in this state could have a standard of care that covers the whole problem, as these two institutions have covered it, and I think it sets a pattern for the future that should be duplicated on a broad scale.

There has been discussion of recent years concerning an annex for the care of bedridden aged persons, as a separate wing of the general hospital. There is much to recommend this procedure, because if an integrated and complete approach to the care of the bedridden aged is given, many older people can be restored to some degree of activity who might not otherwise be rehabilitated in other types of facilities. I think this has been very well borne out by the experience in our institution here in Wayne County known as Eloise. Here, many hundreds of older people are cared for in a way that is not excelled anywhere in the country. A fine general hospital is available on the grounds for any and all kinds of medical and surgical attention, and this is indeed a fortunate circumstance. The shortage of general hospital beds, combined with inadequate personnel, does not make very likely, however, a duplication of this type of service for the private patient as an annex to private general hospitals. Such an arrangement has been worked out in England, and has proven most satisfactory, as it has been reported by Dr. Cosins[1] and others from the Oxford group in England.

Another activity which we physicians can certainly help promote concerns the rehabilitation of handicapped older people. I do not have the

slightest doubt, in spite of the fact that this is a period in which the sentiment of early ambulation is strong, that there still are thousands of older people who are permitted to remain in bed for weeks, months, or years. When some degree of activity is insisted upon at an early date after cerebrovascular accidents, cardiac failure, fractures, et cetera, many of these patients can be restored to unbelievable degrees of activity. We older physicans easily remember many of our patients who had severe hemiplegia that for weeks or months seemed utterly hopeless, and who a year or two afterwards were able to go up and down stairs and do a good deal toward their own care. I can never forget one such patient who was not only hemiplegic but whose speech center was so badly involved that for many months he could only say "yes" or "no." This patient, by the application of patient re-training, through orthopedic measures, and through speech training devices, was actually able to return to his business and carry on a successful advertising agency. I can never forget one of my fine old patients, a judge, who suffered a similar type of hemiplegia, but who for several years now has been able to be about his home and actually go up and down stairs and carry on a reasonably good conversation. And what is especially important is that he is able to enjoy hearing about the doings of his community and can visit with his old friends and associates. Yes, massage, correction of toe drop, early manipulation, and the use of every single adjunct to rehabilitative care can do much for these older people, to make their remaining days enjoyable and not a burden to themselves and others. How often it is, if this is not done, that it can be said of the older person that he died at fifty or sixty but he was not buried until sixty or seventy. This none of us desire, and it is our obligation to see that our patients can avoid this kind of disaster, if it is possible.

In the same connection, I have been very much heartened by some work that has been done by the Institute of Human Adjustment at the University of Michigan,[2] whose staff members have been working in the Detroit area for the past year on what they call their Activities Program. Using scientific measurements and a scientific approach to the problem of care in an average old persons' home, they have compared the well-being and the spirit of the residents in the home before and after certain activities were instituted in the institution. When co-operative endeavors, self-help, recreational and occupational provisions were properly made that had not been possible before, it is reported by this group of workers that a measurable good could be shown to have occurred in the individual persons in this home after such activity was instituted. Unless such a program is well organized and on an economic basis, such as has been carried out especially at the Jewish Home for the Aged, as I have previously mentioned, it is not easily feasible in the average custodial home for the aged. In other words, it is desirable to have very forthright planning at the onset.

As some of you know, we have recently had a visitor to the Detroit area from New York City, a Miss Olive Crandall, who has urged that a return be made to having old people cared for in individual homes—a return, in other words, to the family circle or foster home, where the grandparents are made an integral part of family life. Undoubtedly there are many situations where this kind of relationship is indeed quite ideal. I am sure it is desirable, wherever possible, to preserve the old person's interest in living things, as exemplified in the activity of the family circle. However, in modern urban life, this is many times totally impossible and is often made more difficult because the older person has no preparation whatsoever for the later years and cannot cultivate hobbies or outside interests of any kind. Such an arrangement can be very difficult indeed for younger people who are struggling to adjust to a complex society, when their lives are dominated by a selfish and unreasonable old person. Certainly it is the cause of many family disruptions, and from my own personal observation as a physician, I would strongly favor provision for the various types of care, where under some circumstances the individual family can be used, and in other circumstances congenial housing with people of their own age and interests is provided.

Another subject I wish to mention, which is very much in the minds of some of us in the state of Michigan, concerns the care of the mentally disturbed older person. As most of you probably know, at the present time we are forced to commit these old people to our mental institutions. It is true they are segregated more or less, but usually in quarters not at all designed for economic and completely adequate management of this specific type of mental illness. There are several groups in the state who are promoting the idea that

separate institutions of not too large a size should be provided for the mentally incompetent old person where a different type of institution can be created for this specific purpose. It is hoped that several institutions of this type can be eventually built, to serve the various parts of the state. It would indeed be a great saving, rather than having them housed in an expensive psychiatric institution as at present. We physicians, who all too frequently see this problem in our practice, need to be alert to this movement, and lend our aid wherever possible.

The final social economic matter I wish to discuss relates to the medical care of old age assistance cases which are not in institutions, and to the medical care of persons who have been arbitrarily retired at sixty-five from industry. Under the present arrangement, we have 22,000 recipients of old age assistance in Metropolitan Detroit. These persons receive a total of $60 per month if ambulatory, and $80 per month if they are in nursing homes. For the most part, these people are cared for medically by our free clinics and the city physician's office. In some cities of Michigan, experiments are being made where a modest fee is paid by the county on an individual fee basis and payment is made direct to the county medical society, while care is given by the old person's family physician. This arrangement for the most part has been popular where it is well organized. Preservation of old family physician relationships is so desirable it is hoped we physicians can do everything possible to co-operate in solving this problem satisfactorily throughout the state.

A much more difficult situation exists however when one considers the retired worker. There has recently been organized in Detroit a UAW-CIO Retired Workers Club. I understand 1,000 members have already been listed, and several meetings of the group have been held with as high as 500 in attendance. It is reported to me that a very strong clamor has arisen in this group for some form of government-supplied medical care. When one considers that the retirement pay in our auto factories at present varies between $80 and $125 per month, it is understandable that these families may indeed be hard pressed to provide living necessities and very extensive medical care unless they have considerable reserve savings. Blue Cross-Blue Shield insurance, of course, can be continued on an individual basis after retirement at a slightly higher rate, but apparently not too many workers have continued such coverage. That this ever-increasing group of older citizens provides a fertile field for radical government-controlled medical care goes without saying. Why could not organized labor, organized medicine, and industry sit down together now to discuss proper means of solving this difficult problem. If, in addition, we individual physicians do everything we possibly can to care for and help retired workers, we may indeed avoid undesirable effects.

In summary, may I suggest that we family physicians bear a very real responsibility in not only being alert to the sometimes different diagnostic and therapeutic problems presented by older persons, but that the vast social and economic problems presented by an aging population is also a responsibility which we must share. The provision of adequate facilities for housing, bed care, rehabilitation and preservation of the spirit for older persons is a necessity which is not always being met in every community.

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MSMS

PENSION PLANS

Pension plans begun in more recent years, such as those negotiated in the auto industry, have not felt the full impact of inflation.

But UAW (CIO) officials point out they are keeping close tab on how their 12,500 members who have retired since April, 1950, are getting along. Most of the pensions are limited to a maximum of $125 a month, including social security.

Another group whose retirement plans have come in for revision are persons who took out annuity policies before prices began spiraling.

Insurance spokesmen estimate it takes $180 today to equal the purchasing power of $100 received from such a policy in 1939.—*Detroit Free Press,* April 6, 1952.

Arteriosclerosis

By Chas. F. Wilkinson, Jr., M.D.
New York, New York

OF THE SEVERAL types of arteriosclerosis, atherosclerosis is by far the most important. It is not only the leading cause of death but many of the serious disabilities of later life are secondary to it. This talk will deal with atherosclerosis or atheromatosis. It is a disease of the intima and is most commonly seen in the aorta, but is also found with distressing frequency in the cerebral, coronary and renal arteries.

Certain characteristics of the atheromatous lesion should be emphasized so that we may be better oriented in the subsequent discussion. It is well to point out that it is not an inevitable result of aging. Ophulus[35] has shown that about 10 per cent of individuals above the age of seventy that come to necropsy do not have a significant degree of atherosclerosis. Furthermore, atheromatosis is not a process that is necessarily associated with old or middle age. It does occur in younger individuals. My associates and I[55] have reported a case of a girl, nine years old, with angina pectoris which presumably was due to advanced atherosclerosis. We must remember that all of the experimental methods for producing atheromatosis work as well in the young and middle-aged animals as they do in the older animal. Holman[17] has shown that even in very old and far-advanced atheromatous lesions, one can pick out lesions of very recent origin. We then come to the conclusion that the development of atheromata is an episodic process. The fact that it occurs more commonly in older than in younger people may be the result of an accumulation of lesions over a period of years rather than being due to a process that is associated with old or middle age.

The atheromatous lesion is largely composed of cholesterol,[28,36] and the tremendous amount of evidence that atheromatosis is in some way related to cholesterol metabolism may be regarded as conclusive. However, there is equally good evidence that a metabolic abnormality of this sterol cannot account for all the phenomena observed in this disease.[15] For example, the well-known patchiness of the disease makes it necessary to postulate the operation of local factors in addition to the general metabolic "predisposition." Despite these reservations, the importance of cholesterol metabolism in the genesis of atherosclerosis must still be conceded.

The histology of the atheromatous plaque is so well known that we need not dwell on its description. It is a subintimal collection of lipid-laden foam cells. This lesion may enlarge by the accumulation of more foam cells, may become necrotic and ulcerate through the overlying intima, or may slowly regress, the foam cells being replaced by varying amounts of connective tissue. Though the life history of the characteristic fatty-plaque is known with reasonable certainty, the exact mode of genesis is still obscure. Leary[27] has proposed a theory that the atheromatous process is the result of a direct invasion of the intima by macrophages containing lipid material. These cells he called lipophages, and he states that he has demonstrated all stages of this intimal invasion. This theory has been questioned by some who feel that the lipid, whether as lipophages or not, enters the intima by way of the vasa vasora. On the other hand, Duff[7,8,9] has brought forth evidence that the primary lesion is an alteration of the ground substance of the subintima, which is followed by the appearance of lipid material and finally the local accumulation of phagocytic cells. Wilens[51] has recently demonstrated that the lipids do pass directly through the intima.

There are many apparently controversial statements in the literature. Some of these are not so controversial on second thought but appear to fit into some sort of a pattern. The picture is far from complete but the outlines seem to be forming. There are however still many points of controversy that only the accumulation of more data will settle. Time does not permit a detailed review of the subject, and reference to many excellent papers will have to be omitted.

Bloch and Rittenberg[3] have shown that in the rat most of the cholesterol is formed from acetate and water. Their work indicates that it is unlikely that fatty acids are directly involved in cholesterol synthesis.

The exact mechanism of cholesterol formation in the human is not known, but we do know that it can be synthesized. In 1920 Gamble and Black-

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fan[12] showed that there was a greater output than intake of cholesterol in the infant and concluded that it was synthesized in the body. This has been confirmed by other investigators in the adult.

It has also been shown that many tissues in the body can synthesize cholesterol. Among these are the liver, adrenal cortex, kidney, testes, small intestine and skin.[4,43,44] Siperstein[41] and his colleagues have now shown that even the aorta can carry out this synthesis *in vitro*. The relative importance of this ability of different tissues to synthesize cholesterol cannot be evaluated at this time.

There is good evidence[46] that the rate of synthesis in the body is to some extent dependent upon the amount of cholesterol in the diet. Thus if excessive cholesterol is added, the amount of endogenous cholesterol produced is decreased. If the dietary cholesterol is reduced, endogenous synthesis is increased.

It has also been shown that diets in which cholesterol is low or almost absent do not have any effect on the blood cholesterol of normal people. Even in certain types of hypercholesterolemia, diets in which cholesterol is low or almost absent have no effect on the ability of the body to maintain elevated levels of cholesterol in the blood.[42,53]

It appears certain, therefore, that the human organism can synthesize cholesterol, and except in certain highly artificial situations, can maintain normal or even elevated plasma levels.

One cannot discuss the synthesis of cholesterol without discussing its absorption, destruction and excretion.

Cholesterol can be absorbed from the gut by either the herbivorous or carnivorous animal, and the ability to absorb cholesterol is enhanced by the presence of fat in the gastrointestinal tract.[5]

Keys[25] has shown that the blood cholesterol is lowered even in the face of large amounts of cholesterol in the diet if the other fats in the diet are reduced to less than 20 grams per day. This would indicate a decreased absorption of ingested cholesterol as well as the cholesterol from the bile, to such a degree that endogenous synthesis could not maintain normal blood levels. Mellinkoff's data[29] would appear to be open to the same interpretation. He used a diet completely devoid of fat and obtained a decrease in the blood cholesterol of most of his subjects.

The herbivorous animal certainly handles cholesterol with more difficulty than does the carnivorous one. In fact, it can be shown that herbivora excrete very little cholesterol.[17] This

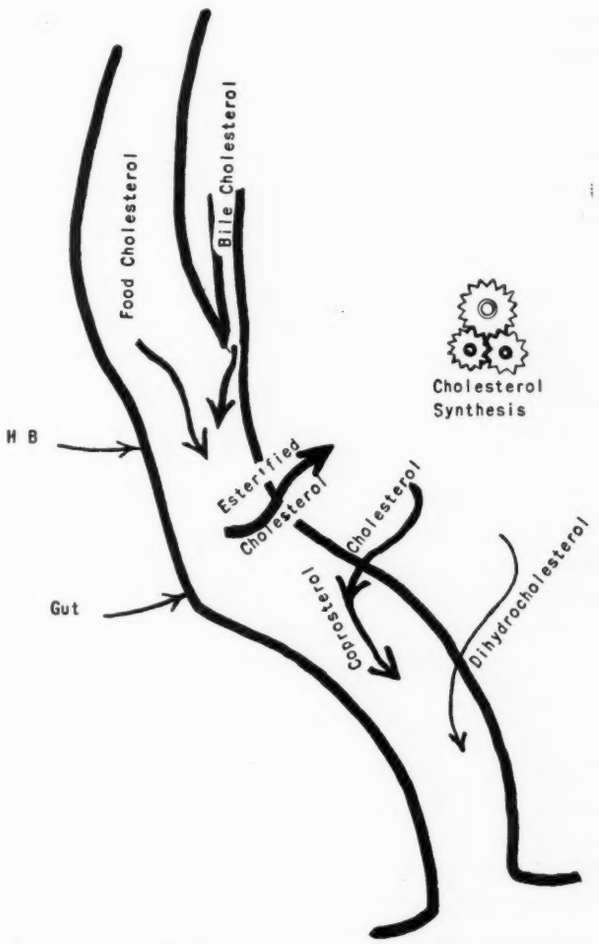

Fig. 1. A simplified diagram of ways cholesterol may be introduced and removed from the gut.

inability to excrete cholesterol after it has been absorbed explains why the blood cholesterol in rabbits can be raised so rapidly by adding it to the diet. From this we must conclude that there are at least two different ways in which cholesterol is metabolized by various animal species.

Neither dihydrocholesterol nor coprosterol can be reabsorbed from the gut. Coprosterol can be formed from cholesterol in the gut. This would be one way in which cholesterol, formed in the body and excreted into the gut, could be made unavailable for reabsorption by the organism. Dihydrocholesterol can be formed in the body and excreted into the gut. The inability of the herbivora to do this as readily as the carnivora may explain many species differences in cholesterol tolerance. Figure 1 illustrates in a diagrammatic

manner the many ways cholesterol is introduced and removed from the gut.

All of this emphasizes the difficulty one has in translating conclusions derived from animal experimentation in cholesterol metabolism to man until more is known about fundamental cholesterol metabolism in man.

The controversy between those who would restrict fat and cholesterol from the diet of an ordinary individual, and those who would not, has achieved so much space in the literature that it would seem profitable to go into this in some detail. It would appear best to approach it first from the point of view of what practical variations in the normal diet do, then, the results of extreme variations in the diet. My colleagues and myself have shown in a recent study[54] that when individuals eat a diet of choice, the individual variations in their dietary fat and cholesterol have no effect on the level of blood cholesterol in normal or hypercholesterolemic individuals. Within the tested range, the percentage of total calories due to fat and cholesterol did not affect the total blood cholesterol (Fig. 2). It should be emphasized, however, that this was a diet of choice and was not a severely restricted diet. A similar piece of work was carried out by Moses[34] and his associates when they added large amounts of cholesterol to the diet of pregnant females. Here, they had a situation where the blood cholesterol would ordinarily increase during the course of pregnancy and they found that even with the added cholesterol there was no greater increase than in their controls.

What happens when fat is totally absent or markedly reduced in the diet? The studies of Keys[25] and Mellinkoff,[29] mentioned above, demonstrated that it is possible to reduce the blood cholesterol by severe restriction. However, few of us would care to eat the completely synthetic diet that Mellinkoff used, or a diet containing 20 grams or less of extractable fat such as Keys employed.

Is it possible to raise the blood cholesterol by variations in the diet? Here again it is possible in very abnormal circumstances to raise the level of the blood cholesterol. Steele[30] and his coworkers have fed dried egg yolk in large amounts to patients and found that it was possible to elevate the blood cholesterol. It is of interest to note that when cholesterol in its pure form was added in even greater amounts than the amount present in egg yolk, no elevation was effected. In addition, pure cholesterol plus added fat did not increase the blood cholesterol as did the dried egg yolk. The amount of egg yolk administered was well above that consumed in the ordinary diet, being equivalent to between 25 and 30 eggs per day, and while the increases in blood cholesterol were very definite, they were not excessive.

From the above illustrations it would appear that normal variations in a diet such as the average person would choose, will not bring about changes in that person's blood cholesterol level. However, with radical restriction of the dietary fat, it is possible to decrease the level of the blood cholesterol and with equally radical changes in the other direction, by the addition of large amounts of egg yolk, it is possible to increase the blood cholesterol. For the present, therefore, it hardly seems reasonable to use dietary regimes in the prevention or treatment of arteriosclerosis unless we are going to advocate an extreme type of diet.

Even if we were able to convince our patients to eat this bizarre diet, have we any proof that a low blood cholesterol will prevent or cure atheromatosis? Shaffer[40] has reported some interesting data after analyzing the autopsy findings of 100 persons between forty-seven and sixty-five years of age who had been on diets abnormally high in cholesterol and fat for the treatment of peptic ulcer. He found that the incidence of coronary arteriosclerosis was no greater than in 100 control persons who had been on diets much lower in cholesterol and fat.

Wilens[50] has shown that the substitution of alcohol for a large portion of ordinary foods in the diet does not have, in itself, an appreciable effect on the development of atherosclerotic lesions. He also emphasizes that the materials deposited in atheromatous lesions are not necessarily derived as such from ingested food. He points out that in excessive alcoholism average body weight is usually maintained and the liver contains large amounts of fat, suggesting that much of the alcohol consumed was converted into fat.

We know that any group of atheromatous individuals, as manifested by coronary occlusion, will have a higher average blood cholesterol than will a corresponding group of normals. It is, however, prudent to point out that many of those with coronary occlusion will have lower blood cholesterols than many of the normals, and some

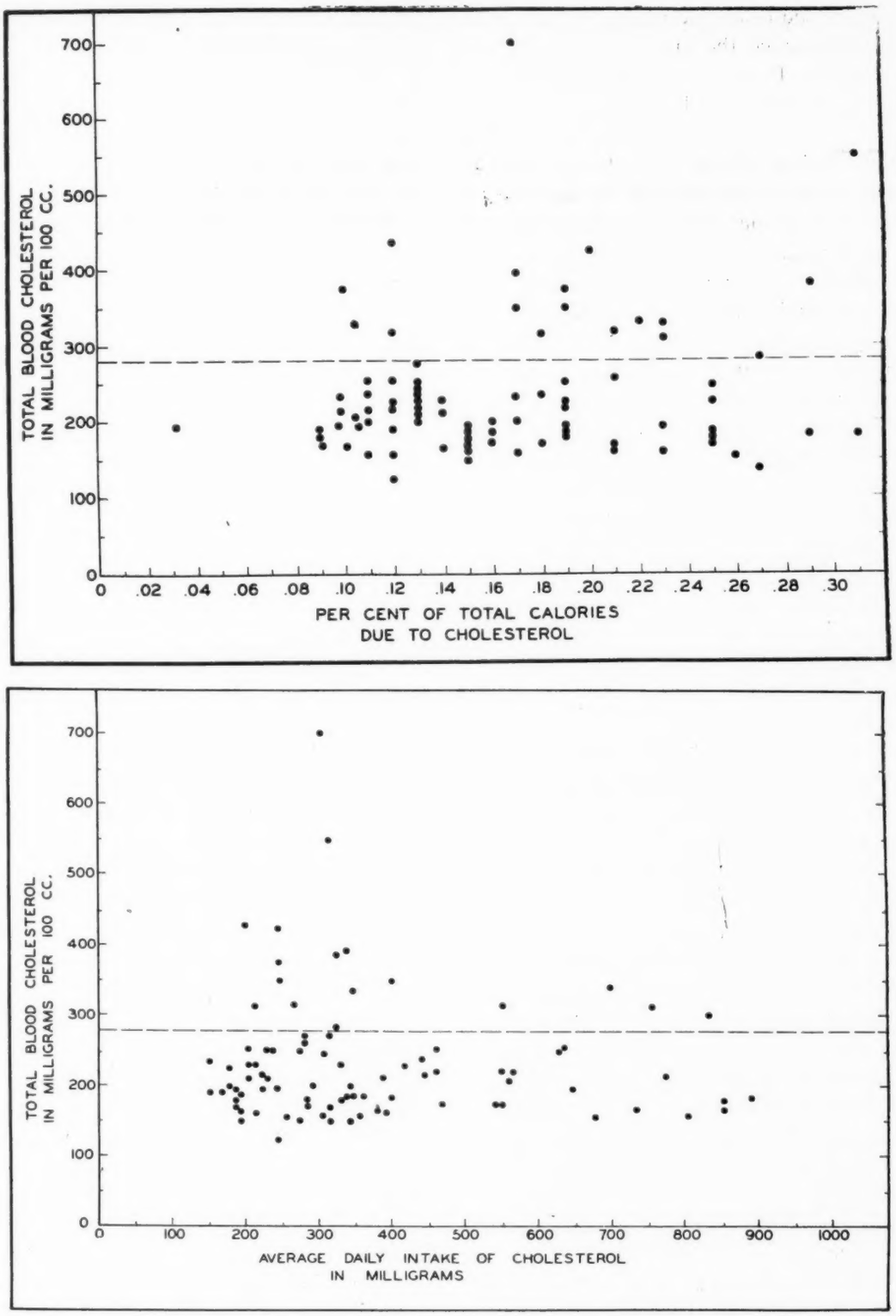

Fig. 2. These two graphs show that there was no relation between total cholesterol intake or per cent of total calories due to cholesterol and the blood cholesterol. Similar graphs were constructed for carbohydrate, fat, and protein.

of the normals may have higher blood cholesterols than those with coronary occlusion. There is, then, no very definite correlation as far as the individual patient is concerned between his blood cholesterol level and whether he will or will not have atheromata.

The demonstration by Hueper[18] that injection of macromolecular colloids others than cholesterol

could produce the histologic picture of atheromatosis naturally excited the suspicion that the stimulus to atheroma formation lay not in the chemical structure of cholesterol but rather in its physical state.

Moreton[31,32] has advanced a theory that the physical state of the blood lipids is the cause of arteriosclerosis. He has reported that people with nephrosis, myxedema, xanthomatosis and other diseases which predispose to arteriosclerosis have an increased number of "chylomicrons," even in the fasting state, and that polyvinyl alcohol and the other substances used by Hueper are also in large particles or "chylomicrons."

His theory is that large lipid particles which pass with the lymph into the intima incite the foreign body response which is a characteristic histological feature in early experimental atheromatosis. He believes the triglycerides and fatty acids are rapidly resorbed or metabolized, and cholesterol, being more inert, remains behind, and accumulation of lipids in the arterial intima is a local mechanical problem and is unrelated to general body balance or over-all metabolism of the body lipids.

Bevans, Kendall and Abell[2] have produced atheromata by repeated injections intravenously of cholesterol suspensions. They noted microscopic evidence of lipid within the intima of the aorta three hours after a single injection. They did not, however, report the particle size of their cholesterol suspensions.

Pollack[37] showed that subintimal cholesterol deposits could be demonstrated immediately upon the completion of injection of cholesterol suspensions and that the number of lesions were larger upon injecting coarse suspensions than finely dispersed cholesterol. He also reported that the number of atheroma-like lesions decreased if the experimental animal were allowed to survive after a single injection.

Still more recently, Gofman[13,14,21] has demonstrated an increase in a certain class of lipoprotein molecules in many cases of experimental and human arteriosclerosis. These molecules are characterized by their rate of flotation in the gravitational field of the ultracentrifuge. These data, while extremely impressive, by no means give an absolute correlation between the incidence of arteriosclerosis and the presence of these particular lipoprotein molecules.

Keys[24] has criticized Gofman's interpretation of his data and believes that the presence of large molecules is no better as an index of the degree of arteriosclerosis present than is the level of the total blood cholesterol. Gofman[21] has also stated that these large molecules could be reduced by restricting the dietary intake of fat. Other workers have not been able to confirm this,[16,33] and at the present we must await clarification of the importance of these large molecules both in the genesis as well as the diagnosis of atheromatosis.

Recently Barr[38] has brought forward new evidence that the physical state of the lipid is important. He has shown that the ratio between the alpha and beta liproproteins is definitely shifted in diabetics who are presumably predisposed to arteriosclerosis. It should be pointed out that the level of the blood cholesterol did not necessarily correlate with the altered physical state of the blood lipids as measured by the method of Barr.

Since the ratios of the various blood lipids are altered in certain disease states and normally change after meals, it is not surprising that some investigators have studied these variations in relation to the formation of atheromata. This led to inquiries into the mechanisms which maintain the normally finely-dispersed colloidal suspension of this hydrophobic lipid in serum. At least two factors would seem to be of importance in this respect: (1) plasma proteins, which have been discussed, and (2) plasma phospholipids.

The major phospholipid of plasma is lecithin, which is hydrophyllic in contrast to the other plasma lipids and is capable of stabilizing oil-in-water emulsions.[39] In 1949, Ahrens and Kunkel[1] were able to show that the concentration of phospholipid was an important factor in determining the particle size of serum lipids.

Kellner and his associates have reported that the repeated intravenous injection of either Tween 80 or Trition A-20 into rabbits fed a high cholesterol diet, retarded or prevented the development of atherosclerosis.[23] This was in spite of the fact that rabbits given the intravenous detergents had far higher mean levels of the blood cholesterol than the control animals, which were also fed cholesterol but did not receive the detergents.

The critical factor in this experiment was thought to be not the level of the blood cholesterol, but its proportionate relationship to the phospholipids in the blood. When the phospholipids were elevated to the same degree as the cholesterol, the incidence and severity of atherosclerosis was de-

creased. If, however, the phospholipid did not parallel the rise in cholesterol, there was rapid production of atheromata. No such protection was noted if the detergents were given by mouth, and intravenous detergents were ineffective in the resorption of atheromata previously produced by cholesterol feeding.

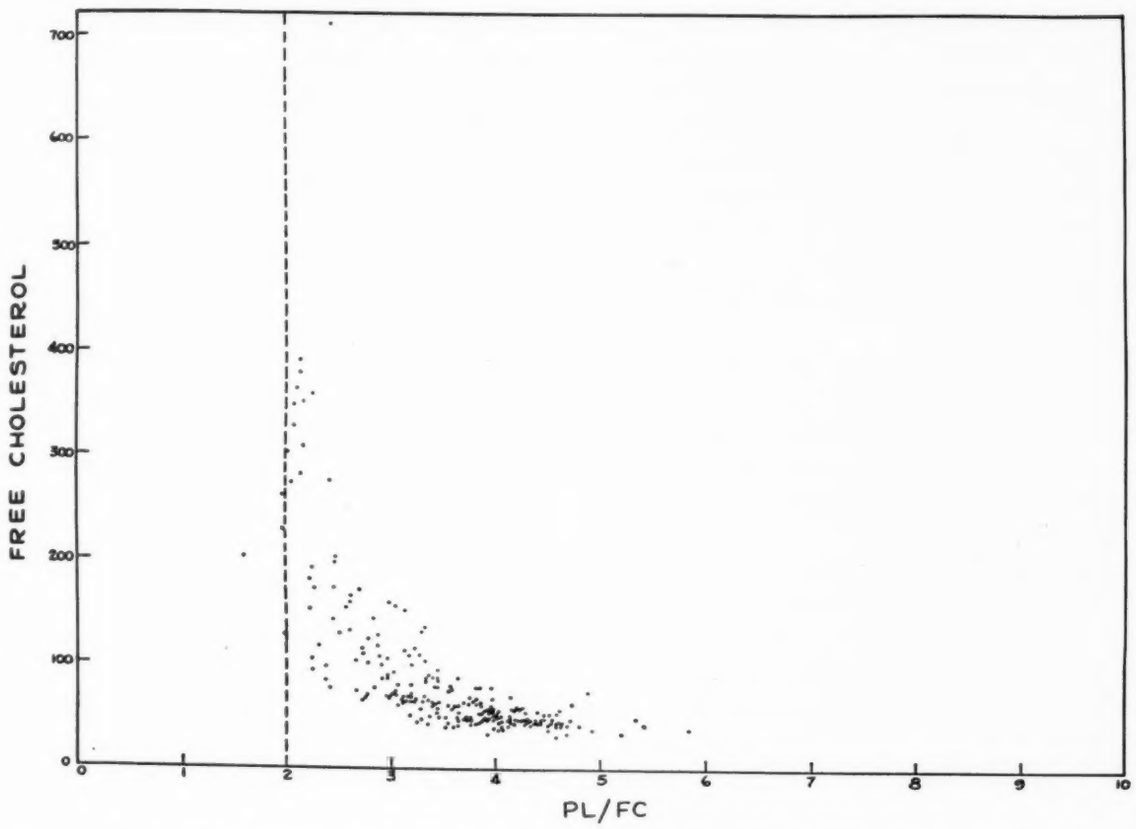

Fig. 3. This illustrates the limiting value of a PL/FC ratio of 2.00. This value represents an equimolar concentration of phospholipid and free cholesterol.

Duff and his co-workers[10] have shown that diabetes produced in rabbits by alloxan actually inhibits the formation of atheromata. This, of course, is directly opposite to the commonly accepted idea that human diabetes causes an increase in the incidence of atherosclerosis. The neutral fat in the diabetic rabbits showed a much greater rise in proportion to the increase in total cholesterol than it did in the control rabbits.

In 1950 and 1951 a group of us[19,20] reported on the relationship between the phospholipids and the cholesterols in plasma on the basis of the examination of 242 human subjects, including both normal controls and a variety of disease states. A most consistent relationship was found to exist between the phospholipids and free cholesterol which appeared to be independent of the disease process. No such relationship could be demonstrated between phospholipid and total or esterified cholesterol.

With elevation of the free cholesterol, there is a decrease in the proportionate amount of phospholipid. The rate of decrease, rapid at first, approaches zero when the PL/FC ratio has declined to the point where equimolar quantities of phospholipid and free cholesterol exist. Further increases in free cholesterol do not disturb this equimolar relationship (Fig. 3).

Since the ratio of free cholesterol and phospholipid can be predicted on the basis of the total cholesterol level, in the absence of liver cell failure, neither this ratio nor the total cholesterol-phospholipid ratio seem to be of any more value than the height of the blood cholesterol in determining whether a patient is likely to have atheromatosis or not. It has been pointed out[26] that the heights of the blood cholesterol cannot be used to separate individuals with atheromatosis from those without it. We do feel, however, that this limiting factor of the unimolar ratio may be important in

intimal metabolism of lipids and the sequestration of cholesterol in the formation of plaques.

More recently, Kellner and his group[22] have emphasized the interrelations of the blood lipids in the lymph and have shown that many of the changes in the circulating plasma are not always reflected in the lipids of the lymph.

With this evidence in front of us it appears reasonable to say that the interrelationship of the blood lipids is important in experimental atheromatosis and possibly in human atheromatosis; and through an understanding of this and the physical state of the blood lipids, we may finally arrive at our goal, which is the prevention and treatment of arteriosclerosis.

There can be no doubt that the state of the body metabolism and mechanics has a great deal to do with the development of atheromata. It would not be practical to cover all the material available on this subject, and I shall, therefore, select only a few examples.

Wilens[49] has shown that atherosclerosis is more likely to develop in obese than in underweight people. He has also shown that the process can be reversed to some extent by a reduction in weight.[52]

Diabetes and myxedema are known to be associated with an increased incidence of atherosclerosis. Stearns[45] and his co-workers have reported that 75 per cent of fifty diabetics at autopsy showed significant coronary artery disease and one third of them died of acute coronary occlusion. They feel that diabetic women over forty are as likely to have coronary atherosclerosis as are men and that diabetics have coronary artery occlusions twice as often as non-diabetic men and eight times as often as non-diabetic women.

On the other hand, Underdahl and Smith,[48] in reviewing the records of 95,000 women under forty seen at the Mayo Clinic over a ten-year period, found only twenty-seven with unequivocal evidence of coronary artery disease, and of these only one had diabetes. They felt that obesity, hypertension and hyperlipemia were the conditions nearly always associated with coronary atheromatosis in women under forty.

Bruger and Chassin[6] in 1940 reported that the hypertensive state leads to an increased deposition of cholesterol in the renal arteries. Faber[11] has demonstrated the same phenomenon in the aorta.

Ophuls[35] has shown the extreme importance of the existence of nephritis in young individuals who have atherosclerosis. In his series of those who had arteriosclerosis below the age of thirty, more than one half of them were nephritic.

The recent brilliant researches by Wilen[51] have shown the extreme importance of intra-arterial pressures upon the rate with which the blood lipids are filtered through the intima. It has also been shown that trauma can predispose to the formation of atheromatous lesions in the experimental animal.

Summary and Conclusions

1. Cholesterol can be manufactured by the body in large amounts.
2. Except in certain metabolic disorders, the level of the blood cholesterol is affected only by extreme changes in the diet.
3. Hypercholesterolemia, *per se,* is probably not the cause of atheromatosis.
4. The physical state of cholesterol and the other blood lipids seems to be an important factor in the production of atheromata.
5. Experimentally, the interrelation of all the blood lipids appears more important than the concentration of any single one.
6. Atheromatosis should be thought of as an episodic, intermittent and cumulative disease. The fundamental underlying process can occur at any age.
7. As yet we have no laboratory procedure which can predict atheromatosis, either present or impending, with any degree of accuracy, except the typical electrocardiogram of coronary occlusion.

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Meniere's Disease

Medical Treatment

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DIFFICULTIES in the therapeutic management of Ménière's disease appear to stem from two sources. The first is the confusion in the differential diagnosis which has been produced by the introduction of the term "Ménière's syndrome" and the broadening of the term to include any condition which produces true vertigo, even aural suppuration, and such diverse symptoms as dizziness, in-co-ordination, unsteadiness, syncope and lightheadedness as well as true rotatory vertigo. This broadening resulted from misreading and misquoting Ménière's original papers both in respect to the symptom complex he described and to the pathologic basis which, it is falsely alleged, he suggested for the condition.[27] A proper conception of the meaning of the terms used, and with this as a basis, proper differential diagnosis is the first requisite in the treatment of this disorder.[26] If this prerequisite to treatment is not met, many therapeutic failures may be expected from attempts to treat as Ménière's disease diverse conditions, which are not in fact Ménière's disease. A careful and detailed history with proper attention to meanings should be considered the basic first step in successful treatment.[25,29]

The second factor which has been productive of therapeutic failure has been the lack of a unifying concept to explain the etiology of this condition. It is considered that this lack has been supplied by the hypothesis of physical allergy.[28] Ménière's disease then is a localized type of autonomic dysfunction producing spasm in the arterioles supplying the macula and crista of the equilibrial labyrinth or those supplying the stria vascularis or both at once. One may thus conceive of Ménière's disease with or without endolymphatic hydrops, a conception which is quite valid on an anatomic basis as was originally pointed out by Lermoyez.

In the localized type of autonomic dysfunction of physical allergy the underlying lesion has been shown to be, by biomicroscopic methods, an arteriolar spasm with secondary dilatation often amounting to varicosity of the conjoined capillary and venule. This results in anoxia, injury to the tissues of the capillary wall and to wandering cells contained in the lumen of the capillary loop. The result of such injury is the release of toxic substances such as the necrosin, leukotaxin, and histamine, depending on the cell injured. Both the anoxia and the released histamine tend to produce an increase in the permeability of the capillary wall with a consequent increase in the interstitial fluid which will result in typical allergic wheal. Other types of allergic lesions may occur if there is a preponderance of substances producing tissue injury.

If such a disorder of function affects the inner ear, it may involve the crista and macula and will result in the characteristic vertiginous crises, falling attacks or persistent unsteadiness. On the other hand, if this arteriolar-capillary disorder affected the stria vascularis, endolymph of increased volume and increased protein content will result. The Donnan effect ought to be particularly active in a situation such as the endolymphatic system, which is virtually an enlarged lymph sac. This, by increasing osmotic pressure in the cochlear duct, should produce an increased volume of endolymph and a squeezing effect on the organ of Corti resulting in the characteristic auditory changes of Ménière's disease.[5,10]

If both areas (the crista and macula, and the stria) are affected simultaneously, the complete triad of Ménière will be produced. Reactions in these different areas result in various symptoms and signs with which we are all familiar,[7] such as the so-called cochlear deafness preceding vertigo by many years, and also the converse. We also recognize that the vertiginous crises and variations of cochlear function in a typical instance of Ménière's disease may occur independently of one another.

In treatment for Ménière's disease three principal factors must be taken into consideration: (1) the dysfunction of the vascular portion of the autonomic system, the arteriole and capillary loop and (2) the collection of an increased amount of interstitial fluid in the endolymph system which is a result of the increased capillary permeability and (3) the dysfunction of the autonomic system. It has been found more effective clinically to treat

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these factors synchronously rather than to direct treatment first against one and then against another aspect of the disorder as is often done.

Vasodilatation to relieve arteriolar spasm was probably the first method employed in the treatment of Ménière's disease. Before the symptom complex was described by Prosper Ménière or its etiology understood, physical therapy was employed in many vertiginous conditions. Müller pointed out that a greater vasodilating effect can be produced by contrast baths than can be produced by the intravenous use of the nitrites and he recommended such therapy in Ménière's disease. Dederding and Mygind and Dederding advocated, in addition, massage, not too vigorously applied. They found that massage mobilized the interstitial collections of fluid in other parts of the body, which in their opinion frequently are associated with Ménière's disease, and tended to correct the disordered splanchnoperipheral balance due to the autonomic dysfunction.

Apparently papaverine was used next.[17] This produced vasodilatation by its effect on smooth muscle, releasing in this manner the arteriolar spasm present. Papaverine hydrochloride, ¼ grain (0.016 gm.) given intravenously, was originally recommended. Later investigators found this dosage too low to be effective in similar conditions. In cerebral angiospasm, for instance, a related condition, Russek and Zohman advocated from 4¼ to 18 grains (0.28 to 1.2 gm.) of papaverine hydrochloride per day by mouth. They found the toxicity of papaverine so low that ten times the maximal therapeutic dose would not result in untoward effects. Combination of papaverine with phenobarbital (¼ to ½ grain; 0.016 to 0.032 gm.) appeared to reduce the dosage of the latter required for clinical improvement. Conversely the use of coffee and tea in excess tended to vitiate the effectiveness of papaverine.

Papaverine, 2 grains (0.13 gm.), can be combined with ¼ grain of phenobarbital and given at intervals of four to six hours throughout the twenty-four. This tends to relieve the arteriolar spasm and at the same time diminishes the emotional perturbation which often seems to be a major factor in precipitating attacks of Ménière's disease.

Histamine has been recommended as a vasodilator in many conditions, especially in Ménière's disease. According to Weiss, Robb and Ellis, the effectiveness of histamine in releasing arteriolar spasm varies in different individuals and some of the failures in histamine therapy may be attributed to this fact. The effectiveness of histamine appears to be due to its speed of administration rather than the total dose received, as it is almost immediately metabolized in the blood stream. For this reason histamine given intramuscularly in small doses is of doubtful effectiveness as a vasodilator.

It is recommended[30] that 2.75 mg. of histamine diphosphate be dissolved in 250 cc. of 5 per cent solution of glucose and administered by intravenous drip. The rate of administration is usually 25 drops per minute at first and gradually increased during the course of administration to 50 drops per minute or more. The rate of administration should be so regulated that no headache or other reaction is produced, and infusion should never be continued longer than one hour. If an untoward reaction is produced, the rate of injection should be immediately slowed. Because histamine produces an increase in the secretion of gastric acid, patients receiving it should either have the stomach full of food or should be given protective antacids during its administration. Best results are secured by daily repetition of the intravenous injections over an extended period. In Ménière's disease with endolymphatic hydrops improvement in the hearing has sometimes not appeared until after two to four weeks of vigorous intravenous histamine therapy although vertigo may disappear in two to three days.

The disadvantages of treatment with histamine are that the constant attention of a physician or of other thoroughly trained persons is required during administration, and relatively elaborate preparations must be made for its use. In this respect it has the same disadvantages as procaine solution used intravenously recommended recently by Hilger except that histamine appears to be a more effective vasodilator.

Nicotinic acid and its pyridine compounds such as sodium, ammonium and monoethanolamine salts containing the free nicotinic acid radical are vasodilators and have a physiologic effect nearly identical to that of histamine.[4] It should be noted that nicotinic acid amide and other compounds having a fixed nicotinic acid radical are not vasodilators but may even have a slight vasoconstricting effect. Their use should be avoided in Ménière's disease.[1]

Nicotinic acid may be given intravenously but when so used has many of the disadvantages of

histamine and in addition is relatively insoluble, 100 mg. requires 10 cc. of water as solvent. Monoethanolamine nicotinate (nicamin)[25] has proved the most convenient vasodilator to use in office practice. It may be secured in vials of 2 cc. containing 100 mg. of the salt. This can be given intramuscularly with no danger of a serious reaction and little danger of any reaction and its administration may therefore be entrusted to the office nurse.

Therapy is started in the average patient with Ménière's disease with intramuscular administration of 25 mg. of monoethanolamine nicotinate. This amount is increased by a like amount at daily or twice daily injections until the dose begins to give relief of symptoms. The dose is then usually 100 mg. Administration of 100 mg. daily is then continued for an extended period. Patients at high altitudes (5,000 feet or more) may require a larger dose to secure comparable therapeutic results, sometimes as much as 400 mg. daily.

Dizziness and vertigo are usually relieved in two or three days and if Ménière's disease is without the cochlear signs of endolymphatic hydrops, the dosage may be decreased at the end of two weeks. This is best done by increasing the interval between doses to every other day for a week, three times a week for another week and then stopping injections. If symptoms tend to return at a later date, "booster" injections may be given. From an initial dose of 25 mg. the dosage may be increased to 100 mg. and given at this level for a week. Administration then may be abruptly stopped. Such "booster shots" given two or three times a year may be found necessary to keep patients with Ménière's disease relatively free of symptoms.

If, on the other hand, endolymphatic hydrops with its associated cochlear symptoms is present, a delay of good results as far as a return of the hearing is concerned should be expected. This delay appears to be owing to the fact that in the endolymphatic system of the human animal nature has prevented those factors such as pulsation of vessels and other structures,[19] which usually operate in the elimination of lymphatic fluid, from producing much effect. Meurman has indicated that in man there is no free communication between the perilymph and the cerebrospinal fluid so that pulsations of the brain and cerebrospinal fluid are prevented from affecting the humors of the ear. Both for this reason and because the endolymphatic (otic) sac and duct are constructed to be effective

Maximum in 24 Hours	Basic Ash Foods	Acid Ash Foods	Minimum in 24 Hours
1 pint	Milk	Eggs	2
2 servings	Vegetables	Meat, fish and fowl	1 serving
		Bread and cereals	5 slices or servings
2 servings	Fruits, except ⟶	Prunes, plums and cranberries	As desired

dampeners of pulsation, secretion as suggested by Guild, by Bast and Anson and by Arnvig, and osmosis are the only forces by which endolymphatic fluid can be eliminated. Therefore the absorption of an excess of endolymphatic fluid, especially if it contains a higher percentage of protein, may take considerable time.

When endolymphatic hydrops is present, therefore, improvement in the hearing may not appear before two or four weeks of active treatment. Active treatment should be continued until improvement in the cochlear function reaches a standstill.

It has been suggested that the use of vasodilators without at the same time paying attention to elimination of interstitial fluid will delay resolution of edema such as is present in endolymphatic hydrops. It is thought that the increased filtration pressure produced by the vasodilator will produce a temporary increase in the volume of the endolymph.

Schemm has stated that retention of sodium is the primary factor in the persistence of edema. In each liter of edema fluid Schemm found 10 gm. of an alkaline mixture of sodium salts, consisting of five parts of sodium chloride to one part of sodium bicarbonate at a pH of 7.4. The alkaline edema fluid remains inert and is retained indefinitely unless the bicarbonate fraction is used up by the metabolic acids or by ingested acids. Acidification mobilizes the sodium. As the sodium leaves the body via the kidneys, its water of solution is free to leave the body as urine, as water vapor or to remain in the body to remedy decreased concentrations of body fluid and cellular dehydration.

Since Rössle has shown that allergic edema fluid differs from ordinary edema fluid only by its higher protein content, elimination of the sodium seems an important goal in endolymphatic hydrops.

Schemm has suggested a low sodium diet which yields a neutral or slightly acid ash, to prevent neutralization of the metabolic acids. He pointed

out that the construction of such a diet depends on knowledge that milk, all vegetables, and all fruits except plums, prunes and cranberries yield an excess of alkaline ash.

Patients with Ménière's disease with endolymphatic hydrops therefore should be put on a diet modified from Schemm as shown in the accompanying table.

Precautions recommended are:

1. Use no salt or soda in or on food (soda biscuits).
2. Take no prepared foods containing salt (sauerkraut).
3. Take no salty broth, soup, extra juice or milk.
4. Take no vegetable salt, no soda bicarbonate for "gas," et cetera.

Schemm stated that the neutral or acid reaction of the diet is, within limits, more relatively important than the total sodium or salt.

Since it is difficult for ambulatory patients to maintain an extremely low sodium diet, patients with Ménière's disease are advised not to add any salt to the diet, except that used in seasoning in the kitchen. Provision is made to get rid of the excess sodium by diuresis and at the same time produce relative acidity, by the use of ammonium chloride. Keith and associates have pointed out that ammonium chloride will have a greater effect toward producing an acid pH than mineral acids. They advised the use of from 6 to 9 gm. per twenty-four hours.

My patients, therefore, are given six enteric-coated tablets of ammonium chloride of 7½ grains (0.48 gm.) each during meals three times a day. Patients also are advised to avoid overloading themselves with fluid, especially beer and soda drinks.

Stoesser and Cook and Kern have shown that sodium tends to lower the threshold above which allergic reaction tends to take place. Furstenberg, Lashmet and Lathrop confirmed this effect of sodium in Ménière's disease. This constitutes an additional important reason why the intake of sodium should be controlled in Ménière's disease.

The third factor to be considered in the relief of Ménière's disease is the autonomic dysfunction consisting of overactivity of the cholinergic portion of the autonomic nervous system. Several autonomic blocking drugs have been presented but the one apparently having the greatest anticholinergic effect at present appears to be beta-diethylaminoethyl xanthene-9-carboxylate (banthine). This interrupts transmission of impulses not only at the autonomic ganglia but also at the end-plates of the cholinergic nerves, thus its activity in therapeutic doses is largely anticholinergic.

In Ménière's disease patients in the active stage are given either 100 mg. of banthine every six hours (night and day), or 50 mg. every four hours. Some patients protest against the night doses, but unless these are given, much of the effect appears to be lost. When the maximal improvement has been obtained, use of this medicament is stopped but patients are advised to resume its use whenever they are to be faced with stress whether environmental or emotional.

Patients should be told of the unpleasant side effects of this drug, the most annoying of which is the dryness of the mouth and nose. Other unpleasant effects are interference with accommodation of the lens and slight difficulty with urination.

Other drugs which may be found useful in Ménière's disease are phenobarbital or Cyclopal.® These may relieve an anxiety tension state which is often present. Both dimenhydrinate (Dramamine®) and diphenhydramine hydrochloride (Benadryl®) have been recommended in Ménière's disease and appear to be about equally effective. Their sedative side action rather than any other may produce the symptomatic relief.

For the acute crisis of Ménière's disease drugs which stimulate the adrenergic and depress the cholinergic fibers of the autonomic nervous system have been found effective. Epinephrine given slowly intravenously will often cause rapid relief to symptoms.

A total of 3 to 5 minims of 1 to 1,000 epinephrine injection is given slowly to relieve the severe vertigo and nausea. Injection should be stopped as soon as the severe symptoms have decreased. Administration by mouth of 3 grains (0.2 gm.) of ephedrine repeated in one-half hour if necessary also has proved effective in the acute attack, as has 10 mg. of amphetamine sulfate. The most effective remedy, however, appears to be atropine sulfate 1/75 grain (0.00086 gm.) given intramuscularly. Patients can be taught to administer this dose to themselves and the fact that they can control and prevent these embarrassing

attacks of vertigo, nausea and vomiting at will goes far to relieve the feeling of insecurity with which many of these patients are afflicted.

Summary

Ménière's disease is considered to be a localized type of overactivity of the cholinergic fibers of the autonomic nervous system acting on the arterioles, capillaries and venules of the peripheral-vascular bed, in other words a physical allergy.

Treatment based on this hypothesis is directed at three principal factors, first, the arteriolar spasm, second, the excess of interstitial fluid, and third, the overaction of the cholinergic fibers. It has been found that if measures directed against these three factors are used concurrently, better results will be obtained than if they are used alone or in tandem.

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Varicose Veins

Evaluation and Treatment

By Charles R. Doyle, M.D.

St. Louis, Missouri

VARICOSE VEINS of the lower extremities and the ulcers of the legs they often cause continue to be one of the most distressing common conditions which confront the physician. This pathological condition has been recognized since the earliest times and many great practitioners have concerned themselves with it. Each has advocated his own form of treatment; and as is the case when so many different therapeutic measures have been and still are advocated, none is completely satisfactory by itself.

The basic trouble in this condition is incompetence of the valves of the veins of the lower extremities. This results in retrograde flow of the blood in these veins, increased pressure on the walls of the veins with resultant dilatation and tortuosity. Thus there is a vicious cycle produced since incompetence of the valves causes increased pressure which, in turn, causes dilatation of the veins and a greater degree of incompetence of the valves. The color changes, thickening of the skin, and frequently ulceration are the result of improper nutrition of the tissues due to stasis and retrograde flow.

Many theories have been advanced as to the cause of varicose veins, such as congenital absence of valves and structural defects in the vein walls. However, it is well known that these cannot be the only causes. They occur most frequently in individuals who are required to stand for long periods of time; barbers, banktellers, cooks, workmen who stand at machines, and clerks are most commonly affected.

During pregnancy minimal varicose veins are likely to become pronounced, and the condition becomes progressively worse with each succeeding pregnancy. Many women come for treatment during the fourth and fifth pregnancy who give a history of trouble during the earlier pregnancies with complete remission of symptoms during the interval between them. As the varicosities become more pronounced with each succeeding pregnancy, the remissions do not occur and the symptoms become more severe.

The most common complaints are pain, tiredness of the legs, full bursting sensation, nonulcerative skin changes and ulcers. Some patients, usually women, come for cosmetic reasons alone. The pain is usually aching in character and becomes worse toward the latter part of the day, and not uncommonly there may be cramp-like pains for an hour or two after going to bed. The full bursting sensation in the legs is present in the more severe cases, particularly those individuals who must stand in one position for long periods of time. The muscular action of walking helps to empty the veins so there is much less stasis even though there is marked retrograde flow. The nonulcerative skin changes vary from mild discoloration to thick brawny induration, most frequently seen in the inner lower aspect of the leg, but may completely encircle the leg just above the ankle.

More than 50 per cent of the patients seen already have ulcers which vary from multiple small, denuded areas in a thickened pigmented skin to large, deep, dirty ulcers, some of which involve the complete circumference of the leg. It is common to find patients who finally present themselves for treatment who have been dressing ulcers daily for two to three years. In several instances the time was as long as eight to fifteen years.

The evaluation of the severity of the condition begins with a complete history and physical examination. The history should be particularly specific regarding any possible previous deep thrombophlebitis. The presence of a post-phlebitic syndrone is usually quite apparent from the examination and definitely does not contraindicate surgical treatment for incompetent superficial veins in which there is retrograde flow of blood. The post-phlebitic syndrome with its complications is too large a subject to include in this discussion. However, it is true that the two conditions frequently are related; and that once there has been a major thrombophlebitis of the deep veins of the lower extremity, that extremity will never again be normal. The severity of the post-phlebitic syndrome probably will become progressively worse beginning from three to five years after the original thrombophlebitis when recanalization of the organized thrombus has progressed significantly.

The history and general physical examination should also determine the presence of pelvic dis-

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ease or tumor, which might cause pressure, or of any general constitutional disease such as diabetes.

In the examination of the lower extremity the arterial circulation should be evaluated, but even though there is impaired arterial flow with marked decrease or absence of the pedal pulses, this is not a contraindication to the treatment of the varicose veins. On the other hand, it may be a definite indication for instituting proper therapy to remove at least one factor producing stasis and contributing to any existing ulceration, in an extremity where the nutrition is borderline.

Numerous tests have been devised to facilitate the diagnosis and to determine the pathological significance of varicose veins. The most common of these are the Brodie-Trendelenburg, the comparative tourniquet of Ochsner and Mahorner, the Perthes' test, the compression test, the Schwartz percussion test, and more recently phlebograms. The Brodie-Trendelenburg test, commonly referred to as the Trendelenburg test, is the only one needed for the complete evaluation of varicose veins. It provides all the information necessary, is the simplest, the quickest, the easiest to perform. It does not require any great skill, and the interpretation of the findings is quite obvious.

The Perthes' and the compression tests are supposed to evaluate the adequacy of the deep venous system; however, the application and interpretation of these tests is not always easy and often fallacious. The Schwartz test is dependent on the transmission of a percussion impulse from a varix in the leg to the sapheno-femoral juncture as a positive indication of an incompetent long saphenous vein. This has been shown to be incorrect and that it is possible for the impulse to be transmitted through the column of blood in a normal vein. The comparative tourniquet test gives no information that is not easily obtainable from the Trendelenburg test, except that it is supposed to indicate the presence of deep vein thrombosis. Theoretically, the latter may be true but its application is highly impracticable.

There are as many methods of producing phlebograms for the evaluation of varicose veins as there are authors advocating their use. The procedure is cumbersome, it is not without some danger (although slight), and the interpretation is difficult and frequently doubtful. However, the most valid argument against their use is that no information is obtained by phlebograms which cannot be more readily and even more accurately obtained by careful clinical examination. Lastly, the results of phlebograms have no bearing whatever on the treatment instituted if there are incompetent varicose veins in which there is retrograde flow.

The Trendelenburg test is accomplished in the following manner: The patient stands so that the entire lower extremity may be inspected. The prominence of the veins and their tension to digital pressure are noted. The patient then lies down and the lower extremity is elevated so that the blood drains from the superficial venous system. Without tourniquet or pressure, he stands again and the rapidity with which the veins fill is noted. It will be immediately apparent where the veins are prominent, whether they fill rapidly or slowly from below. If they fill slowly from below so that forty to fifty seconds elapse before the veins are filled to the level of the knee, then there is no incompetence of the valves at that particular time. If the superficial veins have filled rapidly, there is incompetence.

The patient is asked to lie down and the lower extremities again elevated for a few seconds. Pressure is applied over the sapheno-femoral juncture either digitally or with a tourniquet around the upper thigh, and the patient stands up. With the upper end of this saphenous vein occluded by pressure, if the veins do not fill rapidly as they did without the pressure, then it is apparent that the only incompetence is in the long saphenous vein and that there are no incompetent communicating veins. If, however, when the patient stands the veins in the leg still fill rapidly, even though there is occlusion of the upper end of the saphenous vein by pressure, this is definite evidence of incompetence of one or more communicating veins or incompetence of the short saphenous system; and that blood is pouring out into the superficial veins from the deep system causing them to fill rapidly even though there is a tourniquet around the upper thigh.

It is not always possible, but sometimes the incompetence of the short saphenous system can be demonstrated by digital pressure over the short saphenous vein in the popliteal area with simultaneous occlusion of the long saphenous vein above the knee. The Trendelenburg test can thus be applied to the short saphenous system as it was to the long saphenous system. It is apparent that if there are incompetent communicating veins, the

competence of the short saphenous system cannot be determined as the veins in the leg will fill rapidly when the patient stands whether or not the short saphenous vein is occluded.

There have been many variations and multiple new expressions introduced to further refine the Trendelenburg test. Almost without exception they have confused the interpretation so that it is difficult to tell from the written record just what the examination revealed. It must be borne in mind that the competence of the valves of the veins may change from time to time, so that a patient who is examined early in the day may appear to have competent saphenous systems; while if that same individual is examined later in the day after standing in the kitchen or at a machine, there may be found markedly incompetent veins.

As was stated above, the status of the deep circulation has no bearing on the treatment of incompetent superficial veins except that the results will be much less satisfactory where there is a post-phlebitic syndrome.

The question often arises as to the treatment of varicose veins during pregnancy. There is no reason why women should endure the discomfort of varicose veins for several months during pregnancy. It is perfectly safe, particularly after the third month, to treat the varicose veins as at any other time. Surgical treatment is not ordinarily instituted during the first trimester because of the somewhat increased irritability of the uterus during this time, and also there are usually few complaints until after the third month of gestation.

Many forms of treatment have been advocated. It is not necessary to review the history of the treatment of the varicose veins which goes back to the earliest writings. The most significant advance was the result of the work of Homans, who in 1916 described ligation of the long saphenous vein at the sapheno-femoral juncture with individual ligation of all the tributaries to the upper end of the vein. This procedure has stood the test of time; but multiple ligations, ligations of the individual incompetent communicating veins, high ligation combined with injection therapy, all have been found wanting to a more or less degree. All of these methods may give seemingly good results temporarily, but too often, within one to two years, the patient returns with the same trouble and complaints he had originally.

Multiple ligations and ligations of the individual incompetent communicating veins are impracticable because in only certain patients is it possible to determine the exact location of incompetent communicating veins. In obese individuals, who frequently are troubled with varicose veins, it is impossible to locate the course of the long saphenous vein, let alone determine the site of incompetent communicating veins. Furthermore, granting that it might be possible, often the treatment is incomplete because the competency of veins varies from time to time depending upon the pressure exerted on the walls of the vein from within. This accounts for the fact that patients whose conditions are markedly improved or apparently cured following one of these procedures, may return soon afterwards because segments of the vein which were left and communicating veins which were competent at the time of the first examination, and therefore not ligated, have subsequently become incompetent and produced the same symptom complex as before.

High ligation combined with retrograde or subsequent injection of sclerosing solutions gives much better results than the above procedures. However, there is almost always a severe painful phlebitis if adequate obliteration is obtained. It has been shown also that massive retrograde injection is not without danger not only from possible involvement of the deep veins, but also from allergic sensitivity to the sclerosing solution. Another reason for failure of this method is recanalization of obliterated veins with re-establishment of uncontrolled channels which again give rise to the previous symptoms.

The most complete, the most permanent, the least traumatic and the most easily accomplished adequate procedure for the treatment of varicose veins is the combination of the high ligation at the sapheno-femoral juncture and stripping of the long saphenous vein from the groin to the ankle; and also the ligation of the short saphenous vein in the popliteal space and stripping it from the back of the knee to the lower calf. The incidence of simultaneous incompetence of both saphenous systems is so great, that the long and short systems should be ligated and stripped routinely at the same operation. If the short saphenous system is not incompetent, it usually becomes so before long.

The operation of high ligation and stripping is not a formidable procedure, even though it is

frequently time-consuming. The patient is given adequate sedation, depending upon the age and weight. The lower extremities are shaved completely including the pubic and groin areas. They are then suspended from an overhead screen frame by towels around the heels, while the skin is prepared in the usual manner. A sterile sheet is placed on the table, the feet lowered onto sterile wrappings, and the patient is draped, with either one or both lower extremities exposed (depending upon whether the operation is to be unilateral or bilateral).

The high ligation is accomplished using local infiltration anesthesia of 1 per cent novocain (without adrenalin). The incision is in the crease of the groin centered over the femoral vein. When all the tributaries have been individually ligated and the long saphenous vein ligated flush with the femoral vein, an intraluminal stripper is introduced into the distal segment of the vein. Frequently it passes to the ankle without difficulty, where it can be palpated within the vein.

With local infiltration anesthesia again, the vein is exposed through a small transverse incision where it lies over the internal malleolus. It is picked up and divided between clamps, the distal segment ligated and the stripper brought out through the lower wound. The vein is tied to the stripper cable about one inch from the end and the proper size stripping head threaded onto the cable.

If difficulty is experienced in passing the stripper downward through the saphenous vein (and this frequently occurs), no time is wasted trying to coax it or push it one way or the other trying to introduce it from above downward. Instead the saphenous vein is immediately exposed over the internal malleolus and the stripper introduced from below upwards. With very few exceptions unless there have been extensive injections or previous ligations, the intraluminal cable will readily pass from the ankle to the groin.

If the procedure is a bilateral one, another team has been carrying out the same procedure on the opposite side; or if only one team is working, the procedure accomplished thus far is repeated on the other extremity.

When the stripper or strippers is in place, a general anesthetic (usually gas) is given while the actual stripping is done. The patient is placed in moderate Trendelenburg position and the strippers pulled through, removing the main channels of the long saphenous system and segments of the communicating veins along with them. Only rarely is it necessary to ligate the communicating vessels individually.

As the veins are stripped, pressure is applied over the tracts to help control the bleeding from the avulsed tributaries. There is remarkably little bleeding. (No case has ever required special treatment because of bleeding.)

The patient is allowed to awaken as soon as the veins have been stripped, the wounds are closed with interrupted cotton sutures, dressings are placed on the wounds in the groin, and the patient turned on his abdomen.

Again with local infiltration anesthesia a transverse incision is made just below the popliteal crease. The deep fascia is incised and any significant short saphenous vein will be visualized lying about midway between the condyles of the femur. If there is a significant short saphenous vein, it is ligated as high as possible in the popliteal space, and the lower segment is stripped to the lowest muscular portion of the calf with only short anesthesia for the actual stripping.

Frequently the short saphenous vein appears as a very small structure, but if the stripper can be introduced it should be stripped, because very often, while it appears small in the popliteal area, it is much larger in the calf after it has received incompetent communicating veins or tributaries from the incompetent long saphenous system.

Again the patient is allowed to awaken and the wounds are closed with interrupted cotton.

Occasionally it is impossible to introduce the intraluminal stripper the full length of either the long or short saphenous veins from either direction. Sometimes this difficulty can be overcome by introducing a cable from each direction to the point of obstruction; or it may be necessary to make one or two additional incisions and strip these segments either by the intraluminal or the extraluminal (Mayo) stripper. Also it may be necessary to use the extraluminal stripper where the vein is a thick, heavy, recanulated, thrombosed vein. It is the usual experience that in these relatively infrequent instances, only a combination of intraluminal and extraluminal strippers permits accomplishment of a complete operation.

Elastic bandages are applied from the base of the toes to the upper thigh. The patient is returned to the ward where he is instructed to move

(Continued on Page 591)

Some Effects of Electric Shock on Brain Cortex

By Stanley K. Ellis, Ph.D.,
and
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WORTIS, SHASKAN, Impastato and Almansi[10] have shown that shock lasting 0.1 seconds of 50 to 100 milliamperes and 120 to 145 volts produces a 25 per cent decrease in oxygen consumption of rat brain tissue compared to controls. Their method consisted of shocking the intact rat, excising the brain and determining the rate of oxygen uptake in Ringer's dextrose solution by the Barcroft-Warburg procedure.

In this investigation, a study is made of the effect of electric shock on oxygen consumption rates of mouse brain homogenate and diced brain, respectively, supported in regular and modified Krebs-Ringer's solution. An attempt has been made to demonstrate the behaviorism of brain metabolism before, during and following electrical stimulus. Measurements by polarography permit observation of these phases, which may be recorded graphically. The effect of electric shock on cellular potassium leakage from the whole brain of the mouse is also treated in this communication.

Instrumentation

1. *Heyrovsky Recording Polarograph.*—Model XXI. E. H. Sargent Company, Chicago, Illinois. This instrument was used to study the rate of oxygen consumption of nervous tissue supported in Krebs-Ringer's phosphate buffer solution.

2. *Rectangular Wave Impulse Generator.*—(Shock Instrument). The shock instrument used in this work was custom built by the Detroit Edison Company, Detroit, Michigan. It is a line-operated A.C.-D.C. source unit, capable of delivering 0 to 50 milliamperes at 110 volts, 0 to 70 impulses per second with a cycle duration of 0 to 100 per cent.

3. *Beckman Flame Spectrophotometer.*—All metal balance studies on potassium were made spectroscopically.[6] Because of the very small amounts of potassium to be measured, a physicochemical method appeared desirable.

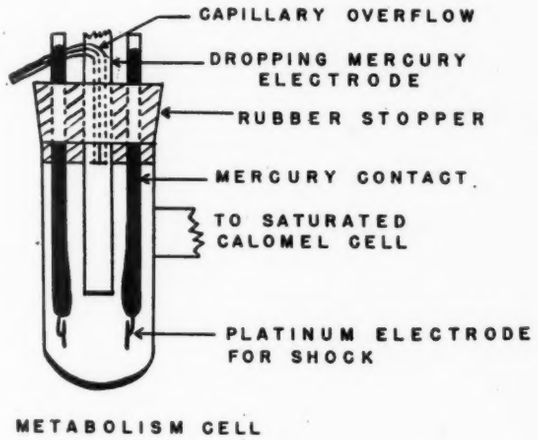

Fig. 1.

4. *Metabolism Cell.*—The cell[5] used in this experimental study is shown in Figure 1. It is composed of a metabolism chamber (approximately 25 milliliters in volume) joined to a calomel half-cell through a saturated potassium chloride agar bridge. The chamber contains two platinum shock electrodes, a dropping mercury cathode and an overflow tip. The tissue preparations and supporting electrolyte are placed in this cell for study. Magnetic stirring was provided to insure uniform diffusion of available oxygen throughout the chamber. The same dropping mercury electrode was used throughout the entire study maintaining a drop rate of approximately four seconds per drop.

5. *Magnetic Stirrer.*

Solutions

The Krebs-Ringer's phosphate buffer solution was prepared according to the following formula:[9]

100 parts of 0.154 M NaCl
4 parts of 0.154 M KCl
3 parts of 0.11 M $CaCl_2$
1 part of 0.154 M KH_2PO_4
1 part of 0.154 M $MgSO_4$
24 parts of 0.1 N phosphate buffer, pH 7.4 (17.8 g. $Na_2HPO_4 \cdot 2H_2O$ and 20 ml. 1 N HCl diluted to 1 liter.)

Technique

Method for Oxygen Consumption Rate Studies.—The tissue preparation was placed in the metabolism cell filled with normal or modified Krebs-

From the Department of Chemistry, Wayne University. Supported by Grant-in-Aid, McGregor Fund, Detroit, Michigan, and Michigan Department of Mental Health.

Dr. Ellis is now associated with the Institute of Biology, University of California, Berkeley.

Ringer's solution. The rubber stopper with accessories was put in place sealing the system from air. The oxygen concentration was then measured polarographically using the calomel cell as a reference anode. Oxygen concentration of the media was determined at a constant voltage of 0.45. A short polarogram recording was made at 0.0 volts before each oxygen concentration measurement to serve as a base or reference point. Less than one minute is required to complete this cycle. Magnetic stirring was continuous except for the time required to record oxygen concentration. No attempt was made to assign quantitative values for oxygen to each polarogram measurement; therefore, these points may be referred to as relative oxygen concentrations as indicated on the accompanying graphs.

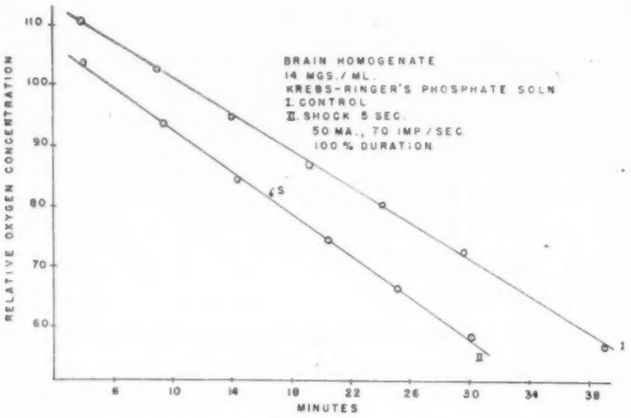

Fig. 2.

Method for Potassium Migration Study.—The investigation of the effect of electrical stimulus on intracellular potassium of nervous tissue was carried out in potassium-free Krebs-Ringer's solution. The whole brain was removed from an etherized mouse, washed in potassium-free Krebs-Ringer's solution several times, suspended between and in contact with the shock electrodes in a simple glass cell. The supporting electrolyte was stirred for various periods of time prior and subsequent to shock stimulus. Samples were taken at intervals to establish the rate of potassium escape from cell to supporting electrolyte. Controls paralleling the conditions of time without shock were made to determine the rate of escape of intracellular potassium from the whole brain by simple diffusion.

Experimentation

Oxygen Consumption.—Petering and Daniels[7] have reported the rate of oxygen consumption of liver homogenates by the polarographic method. Several experiments were performed on this type preparation preliminary to the study of brain tissue. These samples were prepared by using the procedure of Potter and Elvehjem.[8] It was apparent that in order to obtain uniform rates of oxygen consumption stirring was an essential factor. Homogenates of this type eventually settle and carry enough tissue to the bottom of the cell to cause irregularities in the continuous polarogram. Fifty milliampere current, 70 impulses per second of 100 per cent duration at 110 volts made no significant alterations in the rate of oxygen consumption of the liver preparations tested.

In the study of brain homogenates, the forebrain was removed from a live, etherized mouse and washed free of blood. This tissue was thoroughly homogenized in 6 milliliters of Krebs-Ringer's solution. The homogenate was divided into equal portions and each portion diluted to 25 milliliters with Krebs-Ringer's solution. Relative oxygen consumption rates of the two preparations were determined polarographically at room temperature. The results are shown in Figure 2. Alternating current shock imposed for five seconds on one of the samples (Curve II) produced no effect on the oxygen consumption rate. This was anticipated since similar results were obtained with liver homogenates. It will be noted that the initial oxygen concentration of the first sample, represented by Curve I of Figure 2, is somewhat greater than that of the second aliquot, represented by Curve II. This is due in part to the fact that both samples could not be run simultaneously, and even though the sample represented by Curve II was permitted to stand open to the air while the first preparation was being measured, some decrease in initial oxygen concentration resulted due to metabolism of the system.

Holmes[4] has shown that the rate of respiration of chopped or diced cortex is approximately the same as that of slices. Because of ease of preparation, diced samples were used in this investigation. Approximately 0.20 gram of mouse forebrain was diced, washed free of blood with Krebs-Ringer's solution, and transferred to the metabolism cell, which was filled with this electrolyte. The system was sealed and agitated with magnetic stirring. The relative oxygen consumption rate was determined by recording intermittent polarograms at 22° C.

A similar preparation was shocked for five sec-

onds with 110 volts 70 cycle current of 100 per cent duration at 50 milliamperes. The results of this experiment are shown in Figure 3 and are typical of numerous preparations measured which were treated in this manner. It may be seen that the shocked sample (Curve II) underwent an apparent cessation of oxygen consumption and thereafter consumed oxygen at a rate somewhat less (approximately 22 per cent) than the period before shock. The relative rate shown in Curve I is somewhat below that of the relative rate exhibited in Curve II (Fig. 3). Oxygen consumption is in part dependent upon surface area. The technique of dicing brain only approximates equal surface areas. This factor as well as sample size influences the rate of oxygen consumption.

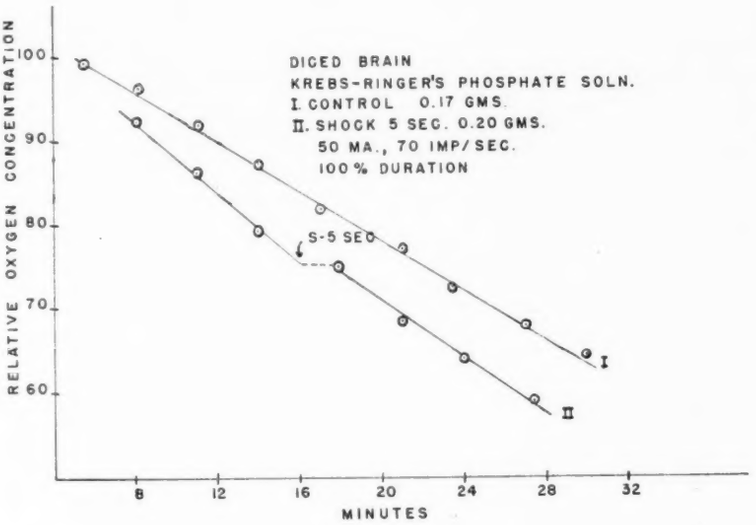

Fig. 3.

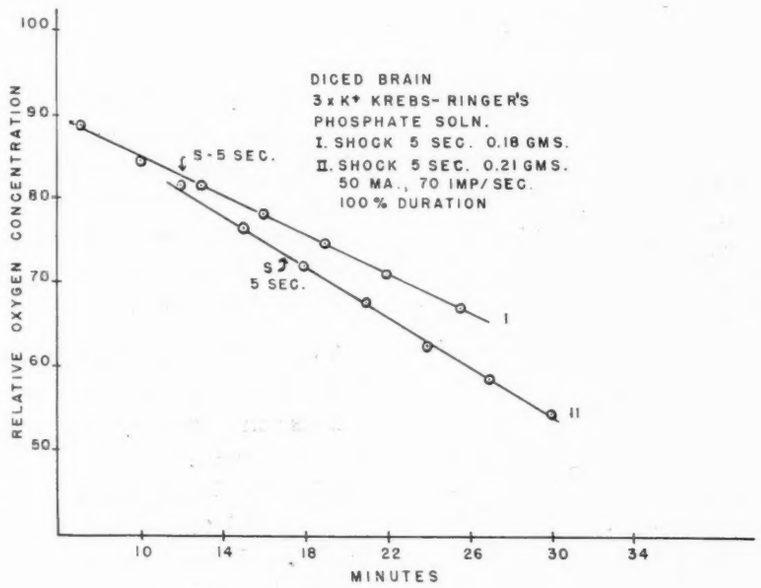

Fig. 4.

Effect of Shock in Modified Ionic Environment.—In this series of experiments, diced brain was shocked in Krebs-Ringer's solution with altered concentrations of potassium and calcium. These modified electrolyte solutions were prepared by adjusting the final volumes with 0.154 M NaCl to approximate the ionic concentrations called for in the original solution formula. For instance, it will be seen that the formula initially requires 4 parts of 0.154 M KCl and 1 part of 0.154

M KH_2PO_4. If all the potassium is removed, 5 parts or volumes must be compensated for to make a total of 133 parts or volumes as indicated, such preparations, however, the rate of oxygen uptake per milligram of tissue appeared to be less than that studied using the regular Krebs-Ringer's electrolyte. Figure 6 illustrates the effect of shock on brain tissue supported in calcium-free Krebs-Ringer's solution. There appears to be some decrease in metabolism after shock, though this is not as apparent as in the case of electric shock on brain tissue supported by unmodified Krebs-Ringer's solution (Fig. 3).

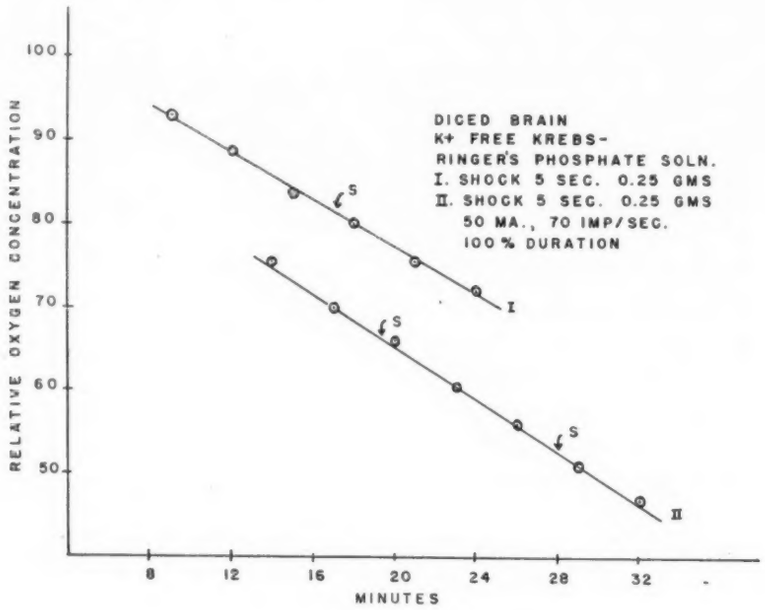

Fig. 5.

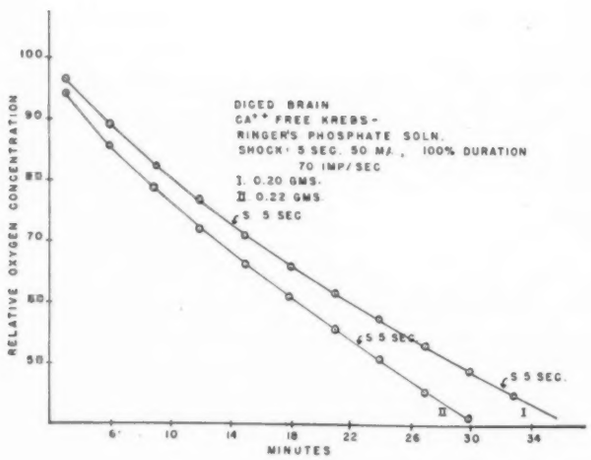

Fig. 6.

originally. By adding 105 parts of 0.154 M NaCl instead of 100, the required amount when potassium is present, the total ionic concentrations remain the same. If more than the normal amount of a specific electrolyte is desired, it is compensated for by adding less 0.154 M NaCl.

The preparations containing the potassium excess (Fig. 4) effectively resisted the normal influence of electric shock. No change in metabolism following shock was demonstrable. This was also shown to be the case when potassium was completely removed from the system (Fig. 5). In

The Effect of Electric Shock on Potassium Migration.—Cowan[2] has reported a twentyfold increase in potassium migration from the unmyelinaed nerve of the crab, Maia squinado, after continuous electric shock of five minutes (14 to 18 18 volts, 40 to 140 impulses per second). More recently, Young[11] has confirmed these results, using the leg nerve of the Limulus. However, Fenn[3] has found that continuous electrical stimulation for thirty minutes (50 to 100 impulses per second) produces no consistent loss or gain of potassium from myelinated nerve of the cat. He attributes this to the presence of the myelin sheath which acts as a barrier preventing the escape of potassium. Cicardo[1] claims that potassium is released from the brain of a dog on electric shock; however, he gives no quantitative data.

Whole forebrain of a mouse, washed free of adherent blood, was fixed between two shock electrodes of platinum and immersed in a 30 ml. cy-

lindrical glass cell containing 15 ml. of potassium-free Krebs-Ringer's solution. Agitation of the electrolyte was obtained by magnetic stirring. One-

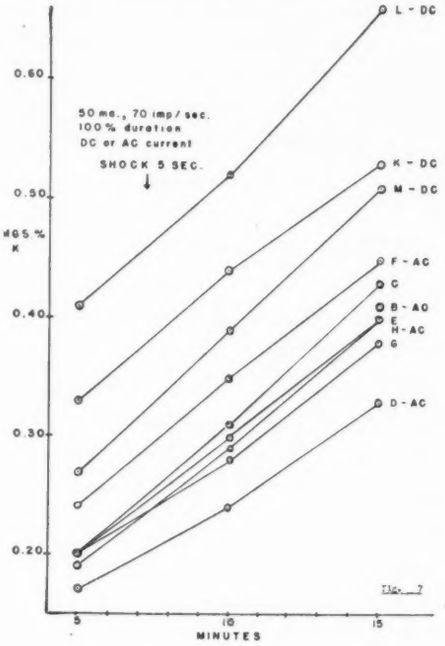

Fig. 7.

milliliter samples were withdrawn at five, ten and fifteen-minute intervals. One minute after the first sample of electrolyte was taken, the preparation was shocked at 100 volts, 70 cycle, 50 milliampere current of 100 per cent duration. The three samples of Krebs-Ringer's solution removed were diluted with five milliliters of distilled water and analyzed for potassium with the Beckman flame spectrophotometer. The results for the controls (G, C, E), A.C. shock (D, H, B, F) and D.C. shock (L, K, M) are shown in Figure 7. It is evident that there is no greater leakage of potassium in preparations which were shocked than in the controls in which potassium was released by simple diffusion. In another series, forebrain specimens were shocked continuously for four minutes (5 milliamperes, 70 impulses per second, 100 per cent duration, 110 volts) in 10 milliliters of Krebs-Ringer's solution. The results were also negative with respect to accelerated potassium migration from cortical tissue.

Summary

1. Electric shock, as used in this investigation, has no apparent effect on the rate of oxygen consumption of mouse brain homogenate.

2. Electric shock stimulus has a definite and immediate effect on the metabolism of diced mouse brain cortex, which is manifested by a cessation of oxygen consumption for measurable periods of time. The rate of metabolism thereafter is approximately 25 per cent slower than that of controls.

3. Modifications in the potassium and calcium ion concentrations of the Krebs-Ringer's solution used to support diced brain during and after shock resulted in behavior markedly different from that observed when these ions were present in normal concentrations.

4. It is suggested that electric shock stimulus produces cellular polarization which prevents the utilization of oxygen by the cell. The mechanism of this polarization is not clear but appears to be related to the cell membrane, since experimentation with homogenates shows clearly that electric shock in no way disturbs the oxidative enzyme systems.

5. Under the conditions of this experimentation, intracellular potassium does not migrate in measurable amounts from mouse brain under electric shock stimuli of varying quality and periods of time.

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Hypertensive Complications of Pregnancy

Experimental Use of Various Drugs

By N. S. Assali, M.D.

Cincinnati, Ohio

IN THE thirty minutes allocated to me, I shall attempt to give a brief summary of the use of several drugs which have served not only as therapeutic agents but also as physiologic tools in the study of hypertensive diseases of pregnancy, particularly pre-eclampsia and eclampsia.

For better understanding of the subject, it would be appropriate to say a few words about the actual concept of toxemia of pregnancy. Although the primary cause of this disease is as yet unknown, it is generally accepted that the main underlying pathophysiologic phenomenon is a widespread arteriolar vasoconstriction. The constriction of this part of the vascular bed, which has also been called the "stopcock" of the circulation, results in hypertension and a decrease in the blood flow to organs and tissues. Edema, albuminuria and other manifestations of toxemia of pregnancy might also be explained on the basis of arteriolar vasoconstriction.

Now, what are the mechanisms through which arteriolar vasoconstriction can be produced? The mechanisms are two:

(a) Increased neurogenic impulses from the autonomic nervous system

(b) Humoral mechanisms such as that produced by epinephrine or epinephrine-like substances.

How did we arrive at this concept and what is the practical application of these findings in obstetrics? That is what I am going to discuss with you.

Figure 1 shows the effect of a standard dose of Tetraethylammonium Chloride (Etamon) on the blood pressure of different groups of patients. As you may know, this drug blocks the autonomic nervous system at the ganglionic level. After the injection of this drug, the blood pressure which remains is supported presumably by humoral agents. The thin line represents the mean control blood pressure. The thick line represents the TEAC "floor." This is defined as the lowest blood pressure reading within the first 10 minutes after the injection of the drug. As you can see, the normotensive non-pregnant subjects respond to the blocking action of TEAC with a slight fall in blood pressure. On the contrary, the normal pregnant group at term responds with a dramatic fall in blood pressure. Toxemic patients show very little response to the blocking action of TEAC.

The conclusions to be drawn from this preliminary set of experiments is that the blood pressure in normal pregnancy is supported by increased neurogenic tone, while in toxemia of pregnancy the neurogenic tone is negligible. Concomitantly, TEAC is of no value in the treatment of toxemia of pregnancy.

Figure 2 shows the effect of another type of autonomic blockade which is very commonly used in practice—that of spinal anesthesia as compared to TEAC. High spinal anesthesia blocks the neurogenic impulses in the subarachnoid space. As you can see, the effect of high spinal anesthesia on the blood pressure of a normotensive non-pregnant female is negligible, and it parallels that of TEAC. On the other hand, the effect of the same agent on the blood pressure of a normal pregnant woman results in a severe fall reaching shock levels (Fig. 3). The same patient submitted to the same procedure following delivery shows a negligible response to both spinal anesthesia and TEAC. In toxemia of pregnancy, high spinal anesthesia to C^4 results in a negligible fall in the blood pressure despite the large quantity of procaine given to the patient.

Patients who present essential hypertension associated with pregnancy very often respond with a marked fall in blood pressure to both spinal anesthesia and TEAC (Fig. 2). This shock-like state can be corrected immediately by raising the legs 90 degrees. This indicates that the fall in blood pressure following spinal anesthesia is caused by pooling of blood in the lower extremities. The mechanism which produces this pooling is the following:

(a) Spinal anesthesia and TEAC produce blockade of the neurogenic impulses which control both arteries and veins.

Presented at the Eighty-Sixth Annual Session of the Michigan State Medical Society at Grand Rapids, September 27, 1951.

Dr. Assali is Director of Research and Assistant Professor, Department of Obstetrics, University of Cincinnati and Cincinnati General Hospital.

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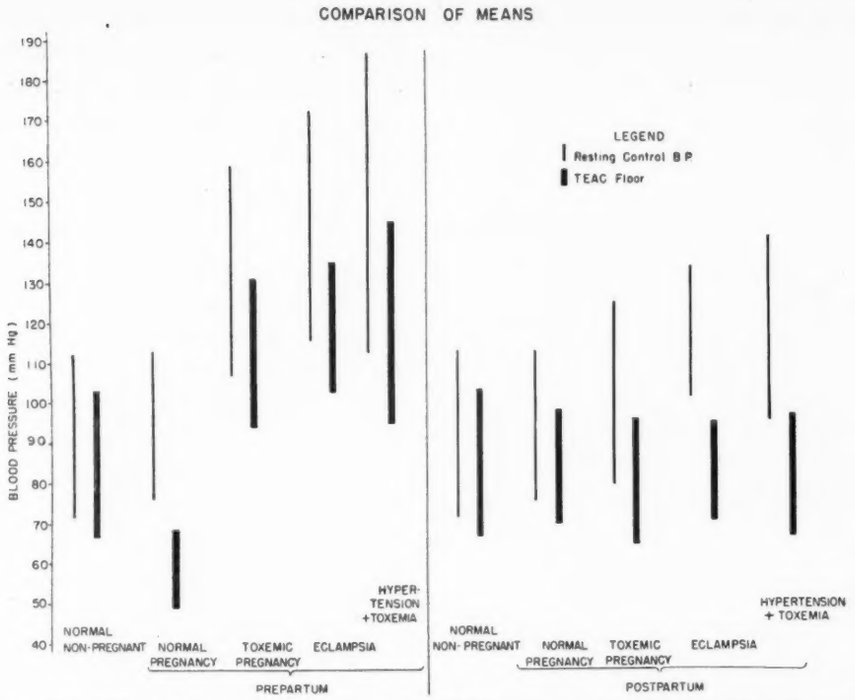

Fig. 1. The effect of a standard test of tetraethylammonium chloride (TEAC) on groups of normal non-pregnant subjects, normal pregnant patients and patients with pre-eclampsia, eclampsia and pre-eclampsia superimposed on essential hypertension in the prepartum and postpartum periods. The thin line is the mean control blood pressure at rest. The thick line is the TEAC "floor" as defined in the text. The upper end of the line is the systolic and the lower end is the diastolic level. Note the marked fall in the blood pressure of normal pregnancy after the blockade as compared to the negligible fall in normal non-pregnant and toxemic patients. In the postpartum period all patients respond in the same manner. These findings indicate increased neurogenic tone in normal pregnancy.

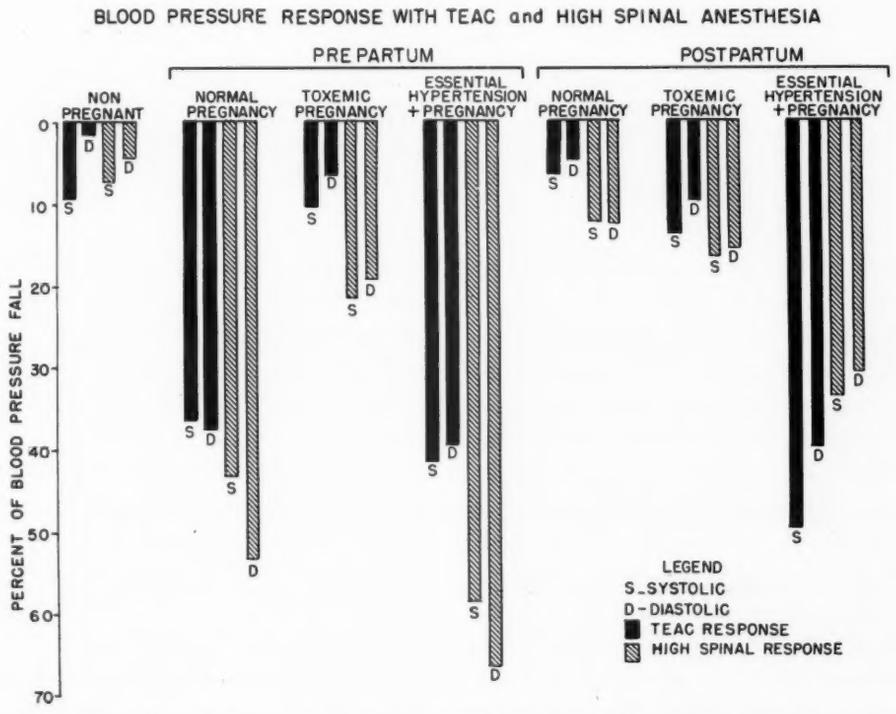

Fig. 2. Comparison between the effects of TEAC and high spinal anesthesia in similar groups of patients as in Figure 1. Note the parallel effects of TEAC and spinal anesthesia in all groups. Once more the contrast between normal and abnormal pregnancies is illustrated. The blood pressure response to TEAC and spinal anesthesia is plotted as per cent of the blood pressure control.

(b) There is dilatation of both arteries and veins.

(c) The arteries regain their tone because they possess intrinsic tone.

tion that pregnant patients are very sensitive to spinal anesthesia. It also explains the tendency of these patients for fainting and for other vasomotor disturbances. These experiments also confirm the

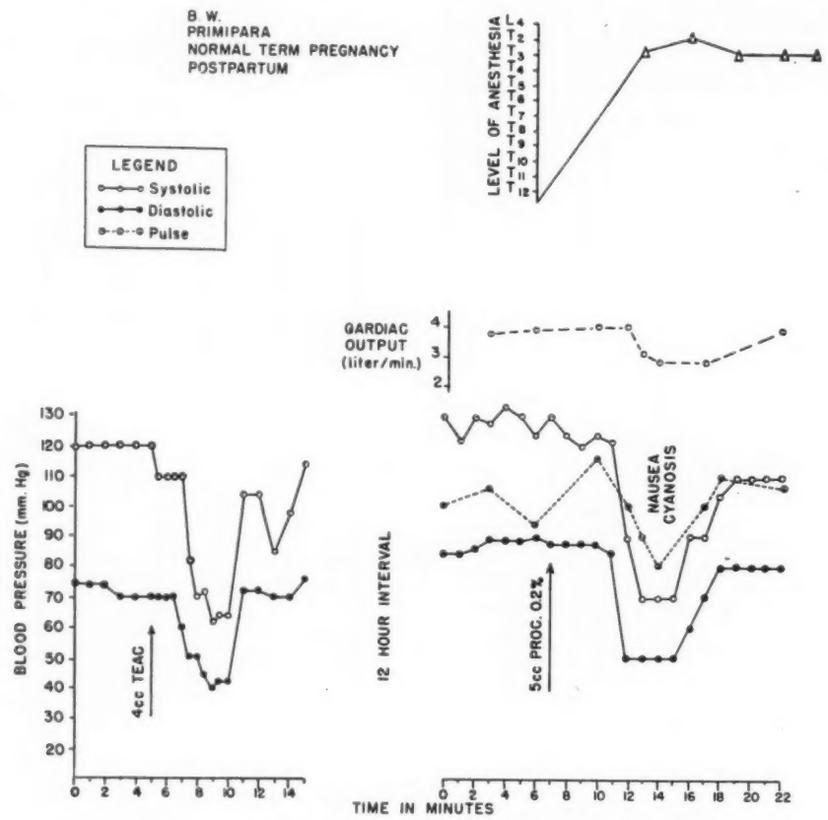

Fig. 3. Cardiac output determinations during spinal anesthesia in a normal pregnant woman. In this case, the cardiac output decreased about 1200 cc. at the height of the blood pressure fall. This decrease is caused by the pooling of blood in the lower extremities and impairment of venous return to the heart.

(d) The veins remain atonic and collapsed because they lack intrinsic tone.

(e) A large amount of blood is pooled in the veins of the lower extremities. This leads to impairment of venous return to the heart and a decrease in the cardiac output. Figure 3 shows that the cardiac output is markedly decreased at the height of fall in blood pressure with spinal anesthesia. Our study shows that the blood flow to the kidneys and the urine volume also drop when the blood pressure falls with spinal anesthesia.

These studies on the effect of spinal anesthesia and TEAC confirmed our previous conclusion that in normal pregnancy at term there is an increased neurogenic tone which maintains the blood pressure. When this tone is blocked, the blood pressure falls to shock levels. This explains the old observa-

idea that the hypertension of toxemia of pregnancy is not caused by increased neurogenic tone. The impression is that humoral agents are the cause of such a hypertension.

Further studies were carried out on the action of a drug which counteracts the effect of epinephrine and nor epinephrine. It is called Benzodioxane. When it is given to a toxemic patient, there is no change in the blood pressure. This indicates that the hypertension of toxemic patients is not caused by epinephrine or nor epinephrine and that the drug has no place in the treatment of this disease.

Figure 4 shows the effect of Roniacol which is also supposed to be a vasodilator agent. You can see that the effect on toxemic hypertension is negligible.

Finally, we come to the drug which has been

used for many years in Cincinnati and now is creating a new enthusiasm around the country—Veratrum Viride. It has been recently demonstrated in man and animal that veratrum produces an integrated arteriolar dilatation without any postural hypotension or any change in the cardiac output.

Figure 5 shows a case of eclampsia treated with veratrum intravenously. An injection of 0.2 cc. of Veratrone was given after the patient was admitted to the hospital in coma. Thereafter, the drug was given in intravenous infusion in 5 per cent glucose and water in amounts regulated as to deliver 0.2 cc. every hour. You can see that the blood pressure is well stabilized within normal ranges. The urinary output was adequate.

It has been said repeatedly that veratrum decreases the urine volume. Our study leads us to believe that there is a slight decrease in the urine volume shortly after the first dose of the drug, but it is later compensated by a marked polyuria.

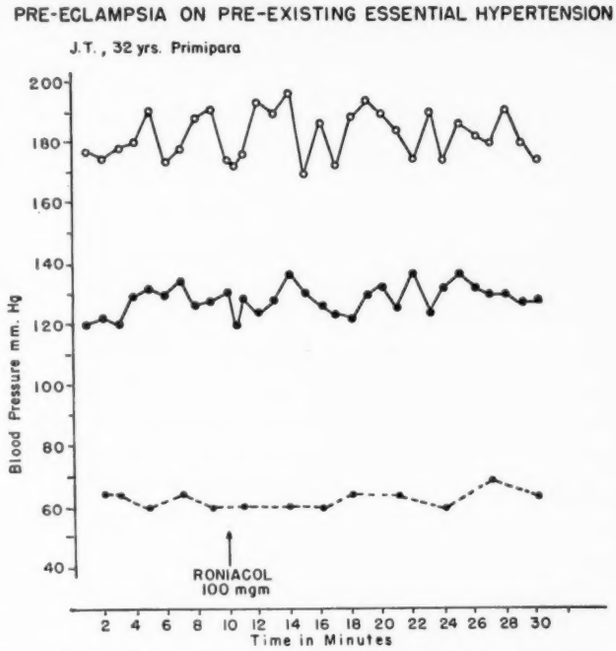

Fig. 4. The effect of Roniacol on the blood pressure and pulse rate of a patient with toxemia superimposed on essential hypertension. No vasodilator action was found.

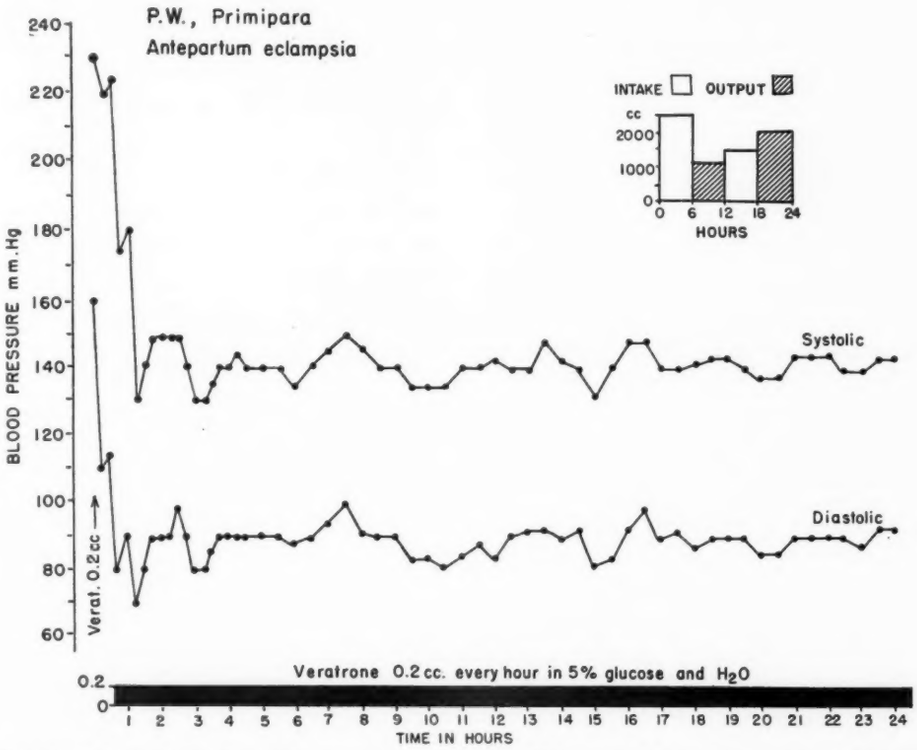

Fig. 5. Eclamptic patient who was seen with her fifth convulsion in progress. Veratrone in the dose of 0.2 cc. was given intravenously. Thereafter, the drug was given in intravenous drip mixed with 5 per cent glucose and water. The blood pressure was maintained within normal ranges with this treatment. Convulsions did not reoccur. The patient was completely controlled within one hour after the treatment. (Courtesy of *American Journal of Obstetrics and Gynecology*)

This temporary decrease is absolutely harmless to the patient.

If there is a serious drop in the blood pressure after veratrum administration, it can always be counteracted by ephedrine or atropine.

During the last year, we have been working with

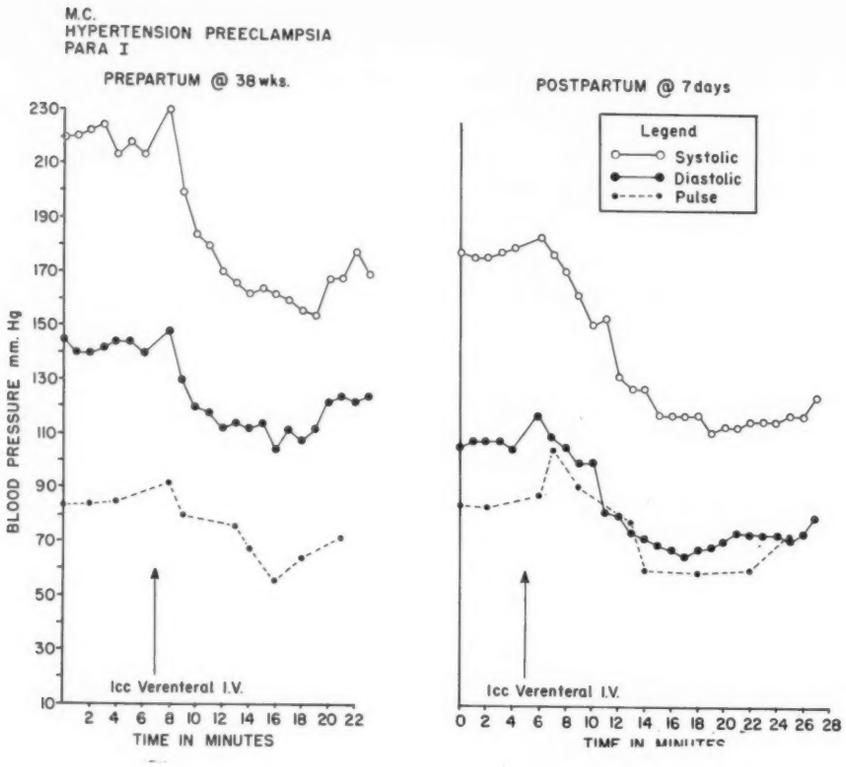

Fig. 6. Pre-eclamptic patient treated with intravenous Verenteral. One dose lasts for approximately one hour. In this figure the time was shortened purposely.

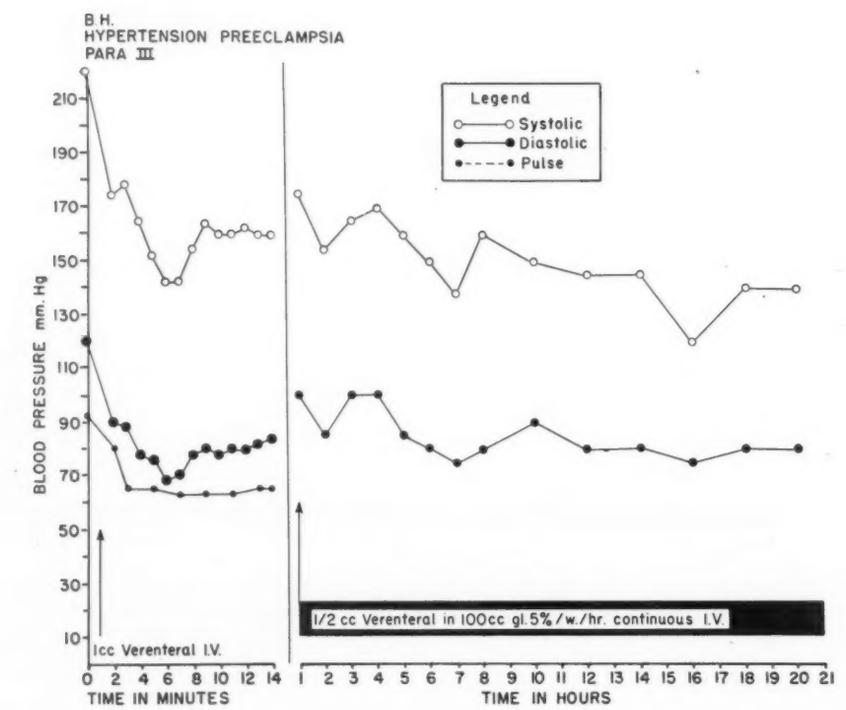

Fig. 7. Severe pre-eclamptic given 1 cc. of Verenteral on admission and later carried on intravenous drip of 0.5 cc./100 cc. of glucose and water hourly. Most patients are controlled quickly with this treatment. The intravenous infusion may last for four to seven days and sometimes longer. Thereafter the intramuscular route can be used.

a new veratrum preparation called Verenteral. It is a stable and a sterile preparation but less concentrated than the old Veratrone. The intravenous dose of Verenteral is from 0.5 cc. to 1 cc. while that of Veratrone is 0.2 cc.

Figure 6 shows a pre-eclamptic patient given 1 cc. of Verenteral. Note the marked drop in the blood pressure which lasts for approximately two hours. This patient was carried on intermittent injections.

Figure 7 shows a pre-eclamptic case treated successfully with intravenous Verenteral. The patient was under control for three to four days. Thereafter, labor was induced medically and the patient was delivered and discharged well from the hospital.

In summary, I would like to say that the real treatment of toxemia of pregnancy awaits the discovery of its cause. We have to continue treating these cases on a somewhat empirical basis.

Autonomic blocking agents of any kind have very little effect on toxemic hypertension. When they produce some effect, it is by venous pooling in the lower extremities and decrease in the cardiac output.

Adrenolytic substances are also of no value in the treatment of this disease.

Veratrum viride preparations, by their vasodilator action on the arteriolar system, by the lack of postural hypotension and by the lack of any effect on the cardiac output, are valuable adjunctive agents in the treatment of toxemia of pregnancy.

From the point of view of the greatest possible gain in early diagnosis, teaching women how to examine their own breasts is more important than teaching the examination technique of breast examination to physicians, for at least 98 per cent of women who have breast cancer discover their tumors themselves.

* * *

Most breast lumps must be biopsied to determine their exact nature, for even the most experienced surgeon will diagnose a breast tumor correctly only 70 per cent of the time.

* * *

In repeated studies it has been shown that the *first* physician to see the patient with breast cancer gives that patient wrong advice in almost 25 per cent of cases, his advice being to "forget it" or "let's watch it."

* * *

In case where a laparotomy and colotomy are performed to remove a polyp, a frozen section examination should be done so that definitive surgery can be carried out at once.

* * *

Painless hematuria indicates malignant disease of the urinary tract in 90 per cent of cases. It is usually the first, and often, for months, the only sign or symptom.

* * *

Many surveys have shown that length of survival after discovery of cancer is directly related to the stage of the disease at the time of diagnosis and treatment.

VARICOSE VEINS

(Continued from Page 580)

the extremities actively as soon as possible. He is gotten out of bed within two to three hours, and walks five minutes every hour for the remainder of the day, and is gotten up to walk five to ten minutes during the middle of the night.

If ulcers are present on the extremity, this is no contraindication to stripping. It is not only time-consuming but definitely unnecessary to wait for healing of an ulcer (if it could be accomplished) before the above treatment is carried out. Patients with ulcers are prepared with moist dressings and antibiotics for two to three days prior to operation, and the stripping is carried to a point distal to the ulcer if possible. If this is not possible, the vein is stripped to a point as close to the ulcer as is technically feasible. Ordinarily these patients leave the hospital on the third or fourth day and return to the physician's office or the clinic for subsequent dressing. The elastic support to the thigh is removed after twenty-four hours, but that on the leg remains for a few days or a few weeks depending on the severity of the condition, the rapidity with which any ulcer heals, and until there is little or no swelling when the elastic support is removed.

Ulcers which have been present for many years frequently heal in four to six weeks; ulcers which have been present only for a few weeks and, therefore, have produced only a moderate amount of scarring frequently heal in a week to ten days.

The results of this method of treatment have been more gratifying than any other. The patients have less discomfort; and, most important, the majority of the patients are cured by one operation. Occasionally subsequent strippings of accessory venous channels are necessary, or subsequent injections of superficial varicosities chiefly for cosmetic reasons are carried out as an office or out-patient clinic procedure.

Conclusions

1. The Trendelenburg test alone is completely satisfactory for the evaluation of varicose veins.

2. High ligation of the long saphenous and ligation of the short saphenous vein in the popliteal space with stripping of both the long and short saphenous veins is the most satisfactory method of treatment.

Civil Defense

By William Henry Gordon, M.D.
Detroit, Michigan

TONIGHT we discuss civil defense.

I do so not as a pessimist or an alarmist but as a realist. We Americans, because of the atomic bomb, which is not only in our hands but in the hands of our enemies, are confronted with a serious threat, a specific danger, which could, if not prepared for, result in the loss of our independence or our total existence as a free nation in a free world.

Today the world is divided into two parts: the free world and the shackled countries.

We of the free world are naive in our trust. We have permitted those who control the shackled countries to have our financial, industrial and military aid, to help them build up a belligerent group whose fundamental aim has been to destroy and conquer.

We are kind and trusting and respect the rights of individuals and nations. Our potential enemy is just the opposite. He has forgotten the Biblical rule: "Thou shalt not covet."

It is because I believe that "vigilance is the price of liberty," and preparation for the future must be today instead of tomorrow, that I wish to present a few phases of the subject for your consideration and action.

It is necessary to define civil defense, to suggest where it fits into our present economy and what is expected of the civilian population to protect itself individually and collectively from the effects of any disaster in the present or in the future.

The outcome of the past two world wars was decided by the weight of American industrial production in support of a determined fighting force.

In a future war, it is probable an enemy would attempt at the outset to destroy or cripple the productive capacity of the United States and to carry direct attack against civilian communities. This would disrupt the war effort.

This assumption constitutes the basic reasoning behind the necessity for civil defense. Attacks would be planned against points which would cause greatest strategic damage. These "target bombings" of our key cities would have four objectives:

1. To destroy production centers, such as Detroit, New York, Los Angeles, Pittsburgh, et cetera.

2. To destroy the nerve center of this country (Washington).

3. To destroy sea and rail centers (the Soo locks; the Chicago and St. Louis rail centers, et cetera).

4. By destroying one or more of the aforesaid, to destroy the psychologic attitude of the population.

If a bombing should occur, the dangers ahead for all of us are disease, flood, fire and hunger—consequently panic and pestilence.

After World War II, a large number of intelligent citizens realized the aforesaid dangers. They organized groups who pestered the federal government to produce a law which would protect them in case of disaster. Such a law was passed by the Congress on September 30, 1950. It is Public Law No. 875 of the 81st Congress.

I urge each and every one of you gentlemen to read that law and see its scope. By passing the law, Congress produced something that never had been part of our past history, that is, four lines of defense—the Army, Navy, Air Force and civil defense.

It legislated the state should be the unit of civil defense—all agencies within the state should be under the control at state level.

Congress also legislated cities, counties, and other units of the state should use the state plan as the master plan, and fit their plans into the jig saw puzzle.

As a result of this law, the majority of states of the United States have plans in different stages of development which are working efficiently.

Detroit and Sault Saint Marie are two of the "target areas" in the United States: Detroit, because it is the center of manufacturing of our armament, and the Soo, because it is the connecting unit of water traffic from the iron-bearing regions which feed our blast furnaces and armament plants.

Try to imagine a hundred sneak suicide long-distance bombers breaking through our air defense, and dropping eight to ten atomic bombs on Detroit, the Number 1 target, the Soo, New York

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Delivered before the Scottish Rite Masons, Detroit, January 22, 1952.

City, Washington, Chicago, Los Angeles and other key centers.

Think of the destruction by radiation, fire, blast, tumbling buildings and other forces; consider our inadequate defense preparation. How would we care for the catastrophe?

Visualize each man for himself, not considering the whole. Imagine the panic, the fires—without equipment and trained fighters—the thousands and hundreds of thousands of injured, the lack of food, water and health facilities, the need for organized care of the casualties, the vandalism without a police system.

Take Woodward Avenue, so loaded with refugees on both sides of the street they interfered with the fire equipment, the ambulances and the trucks coming to the aid of the downtown section at the height of a calamity—all because we did not have a plan.

Remember when the Germans broke through in late 1917—the panic of the French people, how the civilians and their carts blocked the roads while the military were trying to come up—the mass panic in Poland when the Nazis invaded Poland in 1939.

All here know of the unorganized retreat of the South Korean civilian population in late 1950 and early 1951.

Civil defense is not new to America.

All of you have been trained in school fire drills. You were taught not to start a panic, but to remain cool and to march out quietly in an orderly manner.

Today, we adults concerned with civil defense can take a valuable lesson in the psychology of morale from school drills of young children.

The Detroit Board of Education has instituted an excellent school protection plan, including air-raid drills. Mr. John Pritchard, it's secretary for civil defense, recently stated:

"Fear, we have found, is not commonly generated when we explain why we have air-raid drills, in which the school participates as a unit, and there is fellowship and a feeling of mutual support. . . . But when we begin telling pupils how each one should provide for his personal safety in case he sees an atomic flash, we are putting each pupil strictly on his own. Psychologically that is different. And it may be dangerous. We know because we have tried it cautiously in a few places. No terror resulted—the 'guinea pigs' were bright sixth graders—but abruptly there were drawn eyebrows, and covert resistance was high.

". . . Our business is to build the man and woman of tomorrow; we are sending them, the boy and girl of today, diving into basement refuge areas. If we develop permanent attitudes of abject fear in this process—completely defensive attitudes, huddling and helpless attitudes—we are doing tomorrow's America a bad turn. But if we lay emphasis on coming up out of the basement afterward, fit for work and full of fight, we are doing our job the way it ought to be done in time of crisis."

This, it seems to me should be the attitude and the state of morale of our entire civilian population.

General Clyde E. Dougherty, director of the Office of Civil Defense for the City of Detroit, has suggested:

"While the public should be warned and informed of the actual hazard from atomic or other special weapons attack—and it is to be expected that the effects of such attacks would be horrible—the effects can be considerably mitigated by an informed people willing to help themselves and others.

"Sunday supplement writers, "General Dougherty warns, "have pictured the effects of atomic attack as something against which there is no defense. An uninformed public has been led to believe that no defense is available, save fleeing in panic from target areas. This reaction, of course, would serve a useful purpose to an enemy; a purpose which could be accomplished merely by threat of bombing."

The truth is, while atomic bombs hold more death and destruction than man ever before has wrapped up in a single package, their over-all power still has very definite limits. Not even hydrogen bombs will blow the earth apart or kill us all by radioactivity. Atomic weapons will not destroy the earth.

Radioactivity is not the bomb's greatest threat. In most atom raids, blast and heat are by far the greatest dangers that most people must face. Radioactivity alone would account for only a small percentage of all human deaths and injuries, except in underground or underwater explosions.

Radiation sickness is not always fatal. In small amounts, radioactivity seldom is harmful. Even when serious radiation sickness follows a heavy dosage, there is still a good chance for recovery.

Do not worry about high-level radioactive clouds. Regardless of all you may have heard or read concerning the dangers of radioactive clouds, after the first minute and a half there is actually little or nothing to fear from those produced by high-level bursts. While most of the radioactive materials swept up into the sky eventually fall back

to earth, they are so widely and so thinly spread that they are very unlikely to offer any real dangers to human beings.

Thousands of bombs would have to be set off in the air before serious ground contamination would be found over really large areas. There was no ground-level pollution of any importance following either of the two Japanese bombings. Not any of the Japanese at Hiroshima or Nagasaki were harmed by lingering radioactivity. Explosive radioactivity caused all the casualties.

Because the power of all bombs is limited, your chances of living through an atomic attack are much better than you may have thought. In the city of Hiroshima, slightly over half the people who were a mile from the atomic explosion are still alive. At Nagasaki, almost 70 per cent of the people, a mile from the bomb, lived to tell their experiences. Today thousands of survivors of these two atomic attacks live in new houses built right where their old ones once stood. The war may have changed their way of life, but they are not riddled with cancer. Their children are normal. Those who were temporarily unable to have children because of the radiation are now having children. Another myth that should be killed is the false belief that germ warfare, or biological warfare, as it is correctly called, will knock out entire cities. No kind of biological warfare could kill or sicken every person in a large area or city. Also, talk of poisons killing millions of people is nonsense. Toxins, which are special kinds of poisons, can be deadly. But there are definite, practical limits to distributing them. You might as well consider dividing one aspirin tablet evenly among the eleven million people in the greater New York area. Furthermore, no "mystery germs" can cause terrible epidemics. Epidemics are not likely to be caused by biological warfare. Even if one were caused, we probably could stamp it out quickly. The reason plagues used to sweep through whole populations is because our ancestors did not have the fine health safety systems we have today. Although disease can spread quickly, most outbreaks move quite slowly. The plague which swept over London in the seventeenth century began with a few cases in the fall of 1664. It took the disease six months to cross from one side of the city to the other. The peak of the epidemic did not come until August, 1665. While almost 70,000 people died of plague, it was not a lightning-quick disaster from which there was no escape. With the public health organizations which exist now, the London outbreak could have been stamped out with little or no loss of life.

Today the United States has a nationwide system set up to prevent and control disease outbreaks of all kinds. This safety network covers not only people but crops and livestock as well. In suggesting these terrifying myths be viewed in the clear light of reality—which still reveals them as bristling with inherent danger— may I present General Dougherty's challenging but calming conclusion: "The public must be re-educated to the facts necessary for survival under attack, so that casualties can be held to a minimum and the productivity of our cities maintained at the highest degree of efficiency." In short, we cannot prevent enemy attacks from happening, but we can keep them from knocking us out! There is no sure way of keeping enemy planes from breaking through our defenses. General Hoyt Vandenberg, chief-of-staff of the United States Air Force, has said that at most we could knock down only 30 out of each 100 enemy planes attacking America, but there is a sure way to save many thousands of lives if we are attacked. There are defenses against the atomic bombs. There are ways to save thousands of people from the effects of blast, heat and radioactivity. There are ways to take shelter, to rescue the trapped and injured, and to cut fire losses to a minimum. We have defenses against biological warfare and poison gases, but we must face facts. Civil defense takes planning, organization, and hard, hard work.

Consider the Medical Department:

1. Medical and Health Services
2. Public Health
3. Radiological Defense Division
4. Chemical Defense Division
5. Other Special Weapons Defense Division such as Biological Warfare
6. Education and Training
7. Medical Care Services
   - (a) Casualty Medical Services (First Aid and Hospital)
   - (b) Nursing Section
   - (c) Pharmacy
   - (d) Medical Practice
   - (e) Dental Services
   - (f) Physical Medicine
   - (g) Administration

Services which have been mentioned here also include milk and food sanitation, sanitary control

in disaster areas and supervision of general sanitation in emergency shelters, prevention of spread of communicable diseases, mass immunization of disaster victims, motor transport, hospitalization and a regulation center for control of the medical personnel who should be available in the vicinity of the bombed areas, the clergy—extremely important, for one of the greatest controls in panic is the knowledge one has his pastor available—and finally mortuary service, identification of the dead and wounded. The people in bombed England were less panicky when they knew the bodies of their loved ones would be identified and adequately cared for by the mortician. For the services suggested in just this one department—the medical—we need:

1. Physicians from every specialty
2. Dentists
3. Laboratory technicians
4. Nurses
5. Orderlies who are medically trained (there are thousands of male and female hospital orderlies and technicians from the Army, Navy and Air Force who should be available)
6. Ambulance drivers and stretcher bearers

These are only a few of the people needed in the medical setup. Now think of the whole setup from the state down. Governor Williams has made Brigadier-General Lester J. Maitland the director of civil defense for the State of Michigan. His office is at Lansing. General Maitland has appointed his subcommittees from the state level down and has divided his operations and services into many different departments. The major divisions are as follows:

1. Fire Fighters
2. Police
3. Wardens—down to the block and even the building floor level
4. Engineers—supervising blackout, dimouts, camouflage, protective construction, shelters, city planning and sanitary arrangements
5. Rescue
6. Transportation
7. Communications
8. Medical, Health and Welfare
9. Staff

To go into the necessity for these various and manifold classifications and divisions of duties and services and operations which must be set up well in advance of possible calamities and threatened dangers, I should like to go back to England to compare World Wars I and II. I was in London as a medical officer en route to France at the time of the first zeppelin bombing of London, and well remember the surprise and consternation of the British populace at this change in modern warfare: destruction from the air. I was in England again in 1944 and will never get over the precision of a well-trained group of civilians who cared for the destruction and injuries caused by the air, buzz bombing and long range guns. It was remarkable to note the calm and lack of panic of the British with whom I had the opportunity to work. I would like to tell you some other instances. I commanded a hospital between Bristol and Gloucester. It was six miles from our railhead. A call would come telling us we were to receive a convoy of wounded soldiers from France. The Motor Officer was immediately notified, he, in turn notified the Civil Defense Director of Bristol who was told the number of ambulatory and walking wounded to arrive. By the time the train pulled into the railhead, civilian ambulances and litter carriers, supplemented by Medical Corps men, made it possible to unload a convoy of 300 to 400 men from a hospital train and place them in wards in the hospital with the least delay. It is a matter of record—and is one of the fine traditions of England—how householders in Britain fought fire in World War II. In some cases bombs started fires in every house on a street, yet every house was saved. In one town, 150 small fires were started by one air raid. Only two grew large enough to call for the regular fire-fighting service.

I have tried to outline the reason for civil defense. I firmly believe in preparedness, we have safety, and in preparing for preparedness, we must do it *now*—not tomorrow. I suggest each and every one of you decide where you belong—be it with the police, fire fighters, motor transport, communications services, engineers, air plane spotters—there are many from which to choose. Report to General Dougherty's office in Detroit or to General Maitland in Lansing. You must have training in whatsoever duties you undertake. Enlist to do your part. Serve where you can do the most good—civil defense starts with personal and mutual responsibility. May I earnestly suggest you start a civil defense plan and program in your office, factory, church, club, your neighorhood, block and surely in your home. Remember we are a community. We are faced by a danger which

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Blood Typing Tags

By H. E. Cope, M.D.

Lansing, Michigan

MORE THAN 800,000 Michigan people now have or soon will have in their possession Civil Defense blood type identification tags. Therefore, it becomes highly desirable that the story behind these tags be told to the medical professions.

Immediately following the authorization of a Civil Defense blood typing program by the Michigan State Legislature, in March, 1950, a number of pilot studies were set up to determine the relative feasibility of certain proposed methods for large scale typing of civilian populations.

The first of these was conducted in Jackson under the immediate supervision of J. H. Ahronheim, M.D.* As a part of that project, metal identification tags were prepared and distributed to those typed. These tags were prepared by the same method as, and much resembled the charga-plates distributed by retail stores. They carried in reverse embossing, the individual's name, address, accession number, and, on the last line, symbols indicating the individual's religion, blood group and Rh type.

Because of the lack of public acceptance of this type of tag and the difficulty in reading the indented printing, further production of this type of tag was discontinued.

A second type of identification tag was prepared for those individuals in the study groups in Alma and selected pilot groups in the Detroit area. These tags were prepared by laminating typewritten copy between two sheets of plastic. The face of the tag carried the individual's accession number, name, address, religion, blood type and Rh factor. The reverse was color coded in standard international blood type colors.

Accurate typewritten transcriptions of blood typing results were difficult to obtain and in the interest of accuracy, this method of preparation was abadoned in favor of mechanical IBM transcriptions.

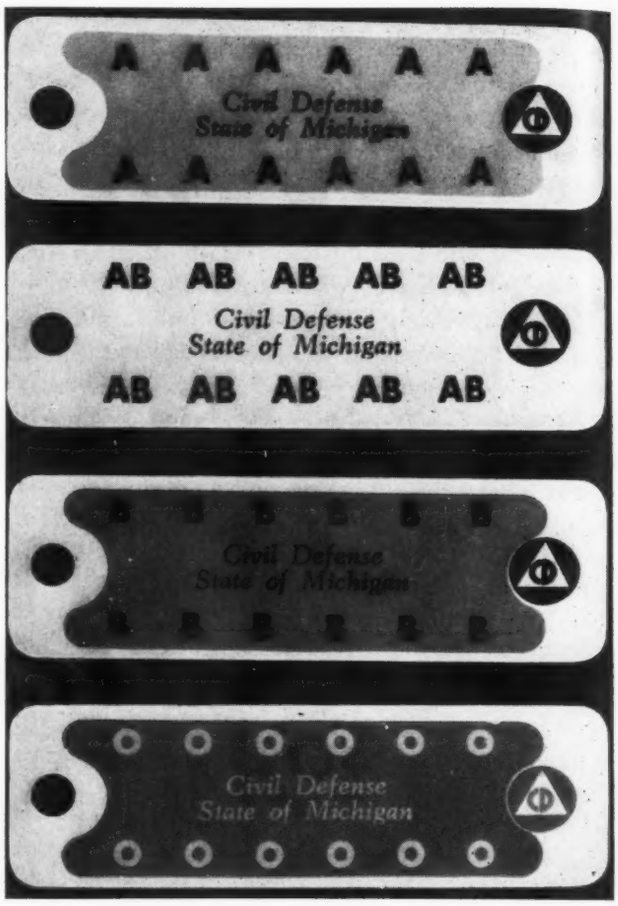
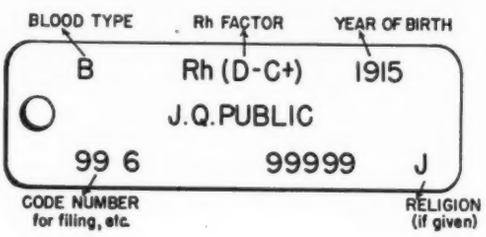


Fig. 1.



MICHIGAN
CIVIL DEFENSE IDENTIFICATION TAG
Fig. 2.

Except for these first 108,356 typings, all other individuals have been issued a tag of the type illustrated in Figure 1.

These tags are in four colors—the standard international blood type colors: Blue for Group O; red for Group B; yellow for Group A and white with black lettering for Group AB.

The information on the face of this tag is

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Dr. Cope, clinical pathologist, Division of Laboratories, Michigan Department of Health, is consultant to the Blood Typing Division of the Michigan Office of Civil Defense.

*See Ahronheim, J. H.: The mass blood typing program of Jackson, Michigan. J. Michigan M. Soc., 50: 288 (March) 1951.

Detroit Physiological Society

MEETING OF MARCH 20, 1952

Maturing Chick Embryo

FRED L. RIGHTS

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Department of Microbiology

The growth of several viruses was observed by *in vitro* and *in vivo* studies in the tissues of embryonated eggs. The viruses studied were influenza, vaccinia, pigeonosis and Newcastle disease (N.D.V.). The *in vitro* studies were performed in fluid tissue cultures by Simm's method without the use of serum ultra-filtrate.

Both *in vitro* and *in vivo* studies indicate that influenza virus grows well in young 10-day chorio allantoic membranes at both 35 and 40° C. However, virus growth is inhibited at 40° C. in 18-day membranes. A similar *in vitro* result was observed when the yield of virus from 18-day pulmonary tissues was compared with that obtained from 2- to 3-day-old chicks.

Such an *in vivo* effect was not observed with the N.D.V. agent. The growth *in vivo* of both pigeonosis virus and vaccinia virus was inhibited by increased temperature regardless of the physiological age of the embryonic membrane.

Factors Affecting the Growth of Virus in the AC-Globulin Changes in Placenta Abruptio

J. F. JOHNSON AND R. G. BRADEN
Wayne University College of Medicine.

In the coagulation of blood prothrombin is activated to thrombin by several activating agents, including thromboplastin. The thrombin formed converts fibrinogen to fibrin. A further action of the thrombin converts plasma Ac-globulin to serum Ac-globulin. The latter form is necessary for the accelerated activation of prothrombin. In time, thrombin also converts serum Ac-globulin to an inactive form, so that no serum Ac-globulin is found in serum older than several minutes.

This investigation was supported by a research grant from the National Institutes of Health, Public Health Service.

According to the work of Schneider there exists, in placenta abruptio, the opportunity for the entrance of thromboplastin from the torn decidua into the circulating maternal blood. This initiates the blood-clotting mechanism. If intravascular coagulation then actually occurs, there should be a fall in the plasma level of the Ac-globulin, as well as a decrease in prothrombin and fibrinogen concentration.

Two cases of full-term pregnancies were studied in which there was separation of the placenta and the blood levels of the prothrombin, fibrinogen and Ac-globulin were measured by reliable quantitative techniques. There was a marked decrease in concentration of these factors immediately after placenta abruptio. These events were followed by a slow rise to normal plasma concentrations in the next two days. Ac-globulin values rose more slowly than either of the others, normal levels being attained only after five days.

Concepts of Plasma Antithrombin Activity

WALTER H. SEEGERS, M.D.

Wayne University College of Medicine

The capacity of plasma to neutralize thrombin activity can be ascribed to at least four mechanisms; namely, (1) Adsorption of a small amount of thrombin on fibrin, (2) Neutralization of thrombin by plasma antithrombin, (3) Interference with the thrombin-fibrinogen interaction by heparin and a plasma co-factor, and (4) The inactivation of thrombin by *antithrombin-accelerator.*

The activity of the natural antithrombin of plasma is destroyed by ether extraction. After such treatment, the antithrombin-accelerator reaction, recently discovered in this laboratory, can be demonstrated. It occurs during and shortly after the activation of prothrombin in plasma. Dicumarol plasma does not give the reaction as markedly as normal plasma does. Serum does not show the reaction at all; but if serum is treated with an adsorbent such as barium carbonate the antithrombin-accelerator reaction can again be

demonstrated. This is done by dissolving purified prothrombin in ether-extracted-barium-carbonate-adsorbed serum. Upon activating the prothrombin the resultant thrombin is inactivated by the antithrombin-accelerator reaction. If the material adsorbed on barium carbonate is eluted with seven per cent sodium citrate solution an inhibitor of the antithrombin-accelerator reaction is obtained.

At the moment an unequivocal interpretation of these important findings is not possible. However, the following theory is proposed: The antithrombin-accelerator reaction is due to a substance which we may call *antithrombin-accelerator*. It arises during the activation of prothrombin, probably due to the action of calcium and thromboplastin. Antithrombin-accelerator can inactivate thrombin and is itself eventually destroyed by an inhibitor of the plasma. This inhibitor can be adsorbed from serum on barium carbonate, and thereby antithrombin-accelerator is set free.

The inhibitor which can be adsorbed on and eluted from barium carbonate can be prepared in concentrated form by the techniques used for preparing concentrates of proconvertin, SPCA, or factor VII, et cetera. Perhaps the inhibitor of antithrombin-accelerator and proconvertin are identical substances. If that be so, then we must consider that proconvertin is not an activator of prothrombin. It may have an indirect influence on the activation of prothrombin by suppressing the antithrombin-accelerator reaction. This would permit thrombin to accumulate rapidly, and this phenomenon could easily be mistaken for accelerated activation of prothrombin. This theory thus regards proconvertin as an inhibitor of an antithrombin reaction.

This investigation was supported by a research grant from the National Institutes of Health, U. S. Public Health Service.

BLOOD TYPING TAGS

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transcribed mechanically from the original punch card records on any given individual. The information is coded (Fig. 2).

Blood group is recorded by international classification as O, A, B or AB. The Rh type is recorded by the Fisher-Race classification as D+; D−C−; or D−C+. An individual whose Rh type is recorded as D+ is Rh_o positive; an individual whose type is recorded as D−C− is Rh'_o negative; and an individual whose type is recorded as D−C+ is Rh_o negative and rh′ positive.

The year of birth, in the upper left-hand corner, is recorded solely as a secondary means of identification in the case of duplication of names.

The code number on the lower line of the tag is made up of three components. The first two digits indicate the county of residence of the individual; the second group, the local group with which the particular individual was blood typed; and the last group, the serial accession number of the individual typed.

The symbol at the far right of the lower line indicates the religious preference of the individual typed if the individual wishes to have that information included on his tag. The space for the religious symbol was reserved at the request of the Michigan clergymen in order that a person gravely injured in accident, disaster or war might have a cleric of his preferred faith to minister to his spiritual needs. The code for symbols indicating religious preference follows: P for Protestant; C for Catholic; J for Jewish, and X if not given.

We have no doubt that the physicians of Michigan have a personal as well as a public interest in the accuracy of these blood types as distributed. Two per cent of all typings have been subjected to duplicate examinations in the local testing laboratories and in the Michigan Department of Health Laboratories. In the check specimens among the first 725,000 typings completed, we have found 23 discrepancies in blood group; fifty discrepancies in testing for D (Rh_o) factor and thirteen discrepancies in testing for the C (rh′) factor; for an overall accuracy 99.26 per cent. We believe that the Michigan Office of Civil Defense, and particularly the individuals in charge of blood typing and responsible for the testing in the local laboratories can be very proud that they have had a part in a project of this magnitude which has resulted in such a low percentage of error.

Editorial

GERIATRICS

A NEW CONCEPT in the practice of medicine, specifically the care of the aged, has become a major activity of the practicing profession. Geriatrics must consider specifically the changed effects of disease, and the reactions of the older patient to environment, illness and health measures. All these have a bearing on the good health, welfare and happiness of the patient.

The task of the medical profession is to alleviate the sufferings of our people—to make life happy, contented, and satisfying. During the formative periods of our nation this was no problem. Our older people were fewer in number, but most of them had accumulated a sufficiency to care for their less active later years, or their families had so established themselves that there was always a place for father, mother, or other elderly relative without disturbing the economy of the group.

The last one or two generations of Americans have witnessed a change so revolutionary it staggers belief. In general, industrialization of the nation has made for more wealth, much higher living standards, and assured work for those who wished to work. Industrialization, however, has left the older person hanging on a limb, with no place to light. The young and vigorous have demanded, and have secured to themselves the best jobs, the control of labor and employment, and through the machinations of labor organizations have set the age limit for working persons at sixty-five.

Old age security has been demanded, and the government has accepted the mandate. We have established by Federal law the policy of Social Security in old age, plus the compulsory retirement of the worker at age sixty-five. True, a person may work after sixty-five, but at a loss of his benefits, and at a serious disadvantage in securing employment. In fact, after age forty-five, or thereabouts, securing a job is oftimes a real problem.

These conditions of instability have increased the problem of the conscientious doctor, for his is the task to correct the effects of a disjointed life and sometimes mentality. In this number of THE JOURNAL, we are offering papers touching on the economic, social, or somatic reactions of our patients.

Recent articles in the metropolitan press admonish people with insufficient fixed incomes not to go to Florida hoping to find employment to eke out their funds.

OLD AGE SECURITY

THE GOVERNMENT passed its social security laws about seventeen years ago, and made them applicable to a large segment of our population, mostly employed persons. Two years ago, an extension of the act brought in about ten million more, but by request and to maintain an American principle of independent action, it exempted certain of the self-employed. The medical profession, law, dentistry, architecture, ministers, and others were exempt. Rates were raised, the wage limit was raised and the benefits were multiplied.

The laws which provided for old age benefits fixed the age of "old age," and provided the machinery for retirement which has been a boomerang. Little did Labor think it was planning a system to make securing of employment difficult during the fifties, and almost impossible in the sixties. To add to Social Security benefits, industry has been compelled to establish retirement plans for its employes. A few years of labor does not establish a backlog of sufficient size to finance these plans. Therefore, an older man out of work has difficulty. This uncertainty has its effect on the morale of the worker.

Recently, labor has been trying to set up a plan whereby a man who changes his employment does not lose his seniority, or his employment social benefits. Federal Social Security is so conducted. It is wholly inadequate and must be supplemented by industrial plans. This has been one of the important "fringe benefits" so universally demanded by labor-bargaining agents.

There are now bills in Congress to add the legal profession to those under the compulsory listing of Social Security, and to extend the listings to an indefinite number. Just recently, Ernest P. Boaz, M.D., and other members of the Physicians Forum, a New York group favoring compulsory

health insurance, have advocated that doctors of medicine be included under Social Security.

We, the medical profession, have believed that our best interests would be served if we were allowed to care for ourselves in the true American independent self-sufficient plan which has made America a nation of giants in the world.

WE ASK EQUALITY AND JUSTICE

FOR THE PAST seven years, this Editor has been advocating that the Federal tax laws be so changed that we as professional men, or self-employed persons, might have the same benefits now allowed to administrators in industry. We invited attention to this problem in September, 1945, page 1013; September, 1949, pages 1171-2; July, 1950, page 810; April, 1951, page 410; May, 1951, page 514; and January, 1952, page 71.

It has been our belief that some modification of the tax laws could be made, allowing self-employed persons of the professions to set aside a certain percentage of their income each year, not to exceed a certain specified amount, to be invested in specified securities (and we suggested low interest government special tax bonds designated for that purpose). The money invested in these securities would be tax-free until such time (after age sixty-five, or after necessary retirement disability) when they would be cashed as annuities, or periodic allowances. At this time they would be taxed as income. There would be an advantage to the Government in that this money reserved from taxes would be invested with the Government, the same as other financing bonds, plus the additional advantage of low interest.

Following our advocacy of this plan, a resolution of approval was passed by the House of Delegates of the American Medical Association in 1949 and 1951. Since that time, the American Medical Association has been active. Several years ago we mentioned that the architects were interested in such a plan, and some years later mentioned the American Bar Association.

We are happy to report that the weekly letter of the Secretary of the American Medical Association for March 21 contains the following paragraph:

"Instead of urging inclusion of doctors under Social Security, the American Medical Association is joining hands with the American Bar Association, the American Dental Association, architects, engineers, accountants, and other professional groups in support of the Reed-Keogh bills, which provide for the exclusion of certain portions of earned income from federal income taxation if those amounts are used to buy a pension. These bills have been approved in principle twice by the House of Delegates."

We firmly believe that some plan, as outlined, could be passed if members of the professions and other self-employed persons would make their belief known to their Congressmen. The bills are now under consideration. The benefit thus provided would be mere justice, placing us on the same benefit plane as is now enjoyed by thousands in industry and other employment.

Under the present Social Security laws of the Federal government, a man who now comes under the benefits (and this is compulsory) may pay a Social Security tax of $81.00 per year for a minimum of eighteen months, then if over sixty-five may retire on a monthly income of $120.00 (if married).

Under the plan we are proposing, we will not in any way be beneficiaries of the Government but will pay for our own benefits by buying them through bonds and annuities. Our demonstrable benefit from the government would be the saving temporarily of income taxes, and through that very savings we would be able to accumulate a security which we cannot do under present tax laws.

All of this points to a greater security in our advancing years, and a greater contentment, therefore a better health because we will have provided for our needs.

WHY DEMORALIZING INACTIVITY?

WE HAVE MENTIONED the provision of our Social Security laws requiring a beneficiary who has passed sixty-five to lose his benefits if he earns more than fifty dollars a month. His maximum benefits, if single, are eighty dollars, making a total of $130 for his support per month. If he earns one cent more, he will lose his Social Security payment, which is tax free, and every cent more than the fifty dollars of earning is taxable.

The law encourages indolence in some and compells indolence in others. The law is claimed by its sponsors to be insurance, the payments are not a dole but a right, yet the Government takes away that right for no good purpose, other than to keep the old man out of the labor market. We

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A True Country Doctor Named Michigan's Foremost Family Physician

Everyone loved it.

The story had great possibilities. It was the personification of a great American Ideal—the revered country doctor.

Clayton Willison, M.D., an 82-year-old Sault Ste. Marie country doctor, was named Michigan's Foremost Family Physician for 1951 by the Michigan State Medical Society House of Delegates. The choice was made during the MSMS 86th Annual Session in Grand Rapids last September. The award scroll was given at the Michigan Clinical Institute in March, 1952.

The selection of Dr. Willison, who has practiced medicine for sixty years, stirred the imagination and lifted the curtain on scores of memories of Michigan's citizenry. These memories, fanned to life by news stories, were tinged with the smell of hot, fresh-baked bread in an old-fashioned kitchen, the excitement of a square dance and the soft crunch of a horse's hoof on a country road.

The story even conjured up pictures of a lone figure driving a horse and buggy through a blinding snowstorm late at night to preside at the birth of a baby, or the long night vigil at the bedside of the patient approaching the crisis in pneumonia.

Those were the good old days—the good old days of the 100-cent dollar, the nickel cigar and the Saturday nights on Main Street. Those were the good old days before the complexities of living in 1952 and the new-fangled penicillin and the sulfonamides.

The good old days when life was worth living —if you managed to. The baby born in a four-poster bed at the neat farmhouse, while the wind-whipped snow raged in white fury outside, had a great future in this land of opportunity as long as his future wasn't cut short at the age of five by whooping cough or perhaps scarlet fever.

THE COVER

Michigan's Foremost Family Physician for 1951, Clayton Willison, M.D., Sault Ste. Marie, receiving scroll from MSMS President Otto O. Beck, M.D., Birmingham, during Michigan Clinical Institute ceremonies in Detroit, March 13, 1952.

What the patient with pneumonia really needed was thousands of units of penicillin. But those were the good old days of 1900 when Sir Alexander Fleming was only nineteen years old.

Without a doubt, Dr. Willison, as Michigan's Foremost Family Physician, fitted into the people's viewpoint of the dearly loved country doctor. The vision, swelled by countless memories, was standardized into a composite picture so that like Pavlov's dogs the stimulation by the phrase "country doctor" rang the bell and the same scene unfolded in a million minds: a kindly, respected man who at the first stab of pain or the first sniffle could be called day or night in rain or shine. He was the uncomplaining individual, who seemed duty-bound to travel the same roads at night which some patients found inconvenient to travel during office hours. And he was agreeable. His bills could be paid last or not at all. He understood.

The elements in the story of Dr. Willison's life meshed with the picture. But there was another element in the picture which was not so visible. Dr. Willison and his contemporaries were the vanguard in an era of medical advancement which is still moving forward.

In training for his role of the country doctor, Dr. Willison attended the University of Michigan for two years, then transferred to the Chicago Homeopathic Medical College where he received his medical degree in 1891. And in 1891 already the first strides in better medical education were being made. Dr. Willison became the first intern at Grace Hospital, Detroit.

The same year he was appointed Assistant House Surgeon at Grace Hospital; the next year he was named House Surgeon at the Hospital. In 1894 he entered private practice in Detroit.

Several years later he left the city and became part of the development of the giant lumbering industry. He served as a physician and surgeon in lumber camps of northern Michigan.

At the turn of the century, Dr. Willison began his medical practice in Sault Ste. Marie, Michigan. During a portion of his medical career, he represented the U. S. Public Health Service in Sault

Ste. Marie. When he left the Health Service he still continued in his practice which even today is still an active one.

The story of Dr. Willison further conforms to the picture of the country doctor. During his six decades of practice, he has delivered more than 5,000 babies. Then, too, there were many trips through the rough roads of the backwoods to heal the sick. Often he would travel 30 to 40 miles on a single call. Occasionally, he got there by horseback or sometimes on foot. When the shortest route to his patient was by water, he navigated the distance in a sailboat. In the winter he made the rounds on snowshoes or by dog team.

And the picture was made complete by the occasional kitchen-table operations on patients located in cabins of the rugged north country.

But there was a rub—a contradiction—in this idealistic picture of the country doctor. While the rose-colored concept remained the same, Dr. Willison and his confreres changed with time as scientific advances gave them new weapons to fight disease. Besides the new drugs and new medical knowledge, there was water purification, garbage collections and inside plumbing.

The people changed too, in a way, but they were caught in a dilemma. They still clung to the picture of the old country doctor, but they didn't want their kitchen turned into an operating room. They wanted the best hospital with the latest in operating tables and the most able surgical specialists. When they had pneumonia, they longed for the attention of the long-night vigil but expected penicillin. But the penicillin eliminated the night watch.

So the ideal picture of the country doctor didn't work out in practice in more recent years. And it was a lucky thing, too, because the medical advances adopted by these medical men meant a longer life for their patients.

Yet to learn of these advances, the doctors had to attend postgraduate courses and scientific meetings. Occasionally at these meetings they turned from the purely scientific to honor one of their own members with recognition of a Foremost Family Physician.

This year the honor went to Dr. Willison. The American Medical Association also recognized Dr. Willison's contributions to medical practice in December at the AMA Clinical Session at Los Angeles; the Sault Ste. Marie doctor of medicine was one of three finalists for the AMA General Practitioner Gold Medal Award.

In view of these honors accorded Dr. Willison, the Chippewa County Medical Society joined with a citizens' committee made up of Sault Ste. Marie business, professional, fraternal and service organizations and held a testimonial dinner, February 21, at the Sault. On this occasion Michigan's Foremost Family Physician was awarded a concurrent resolution passed by the Michigan Legislature which paid tribute to Dr. Willison as an outstanding medical doctor in Michigan.

But through all the honors and ceremonies, Dr. Willison has retained the flavor of the true country doctor. On the night of his initial triumph—the night he was named Michigan's Foremost Family Physician for 1951—when the news was flashed to Sault Ste. Marie, he was the last to know. Dr. Willison was busy making a house call.

CIVIL DEFENSE

(Continued from Page 595)

might be disastrous to us, to our families, to our communities, to our country and to the world. And to repeat myself, it is up to each and every one to enlist in the particular civil defense activity in which he is best qualified to serve, in order to prevent the disaster from being a disaster.

In conclusion, life and the world continue day by day in the same manner as the waves wash the beaches and ocean shores. If there is anything we should do for tomorrow, we must do it today, as today will never come again and tomorrow will be too late.

Pictorial Highlights Sixth Michigan Clinical Institute

Hillsdale County Medical Society Receives Recognition for Cancer Detection Pioneering

Every Doctor's Office a Detection Center

Arthur W. Strom, M.D., Hillsdale, official representative of the Hillsdale County Medical Society, accepts a scroll presented by Otto O. Beck, M.D., Birmingham, President of the Michigan State Medical Society, in recognition of the efforts of the Hillsdale County Medical Society members in developing an outstanding and successful cancer detection project. The award was presented March 13 during the Michigan Clinical Institute in Detroit. Present at the ceremony are, left to right, William Bromme, M.D., Chairman of The MSMS Council; R. J. Hubbell, M.D., Kalamazoo, MSMS President-Elect; President Beck; Dr. Strom; and E. F. Sladek, M.D., Traverse City, M.C.I. Chairman.

While three of the four scrolls presented by the Michigan State Medical Society at the 1952 Michigan Clinical Institute honored individuals, the fourth scroll honored a life-saving plan.

This plan—The Hillsdale Plan for Tumor Detection — was launched January 1, 1948, by members of the Hillsdale County Medical Society. It was a new development in the fight against cancer. The Hillsdale Plan makes every doctor's office a detection center for cancer.

According to a survey conducted by the MSMS Cancer Control Committee, more than two-thirds of cancer develops in areas of the skin, breast, uterus and rectum. These areas of the body could be examined in a doctor's office and cancer prevented.

To the doctors of medicine in Hillsdale County, an examination of the patient for evidence of cancer of the skin, breast, uterus or rectum seemed a logical answer to finding cancer in early and curable stages.

This Certificate of Commendation
is presented by the
MICHIGAN STATE MEDICAL SOCIETY
to the
HILLSDALE COUNTY MEDICAL SOCIETY
for its pioneering effort in developing
THE HILLSDALE PLAN FOR TUMOR DETECTION
The most practical and effective plan yet devised for finding cancer in early and curable stages.

From its inception in the rolling countryside of Hillsdale County, the Plan soon spread to other areas of Michigan and the United States. These communities and medical societies which have adopted a version of the original plan are also on the alert for early signs of the disease.

The pioneering efforts of the Hillsdale County Medical Society were recognized by the Michigan State Medical Society in its presentation of the scroll on March 13. The scroll is worded as shown in the insert.

Two Michigan Doctors Lead National Medical Groups

Doctor Bartemeier's Work Recognized

Leo H. Bartemeier, M.D., Detroit, is honored by the Michigan State Medical Society with a scroll presented by William Bromme, M.D., Detroit, Chairman of The MSMS Council. Pictured *(left to right)* are: Howard A. Rusk, M.D., New York City, guest speaker; Dr. Bromme; Dr. Bartemeier; Otto O. Beck, M.D., MSMS President; and Gregory Zilboorg, M.D., New York, guest speaker at the Bartemeier Testimonial Dinner of March 12.

Two Detroit doctors of medicine, elevated to the presidency of their national specialty organizations, received recognition by the Michigan State Medical Society for distinguished service to medicine, medical education and research.

They are Leo H. Bartemeier, M.D., President of the American Psychiatric Association, and James Milton Robb, M.D., President of the American Academy of Ophthalmology and Otolaryngology.

Dr. Bartemeier received his scroll during the March 12 luncheon meeting at the Michigan Clinical Institute in Detroit. Dr. Robb was awarded his scroll the following day during the Institute luncheon.

Both physicians are on the faculty of Wayne University College of Medicine. Dr. Bartemeier is Associate Professor of Clinical Psychiatry while Dr. Robb is Professor of Otolaryngology.

Doctor Robb Honored

James Milton Robb, M.D., Detroit, receives his scroll from Otto O. Beck, M.D., Birmingham, MSMS President. Pictured left to right during the presentation are R. J. Hubbell, M.D., Kalamazoo, MSMS President-Elect; E. F. Sladek, M.D., Traverse City, M.C.I. Chairman; Dr. Robb; President Beck; and William Bromme, M.D., Detroit, Chairman of The MSMS Council.

1952 MCI Breaks Attendance Records

A total of 1,933—just sixty-six less than 2,000—registered at the 1952 Michigan Clinical Institute—this despite the blinding blizzard and snowstorm of Thursday and notwithstanding the railroad strike which delayed arrival in Detroit of the 2,000 printed programs!

This registration record included 1,395 Doctors of Medicine. It represented an increase of 354 over last year's Institute registration of 1,579.

Out-of-Michigan M.D.s who registered included physicans from California, Colorado, Illinois, Indiana, Massachusetts, Minnesota, Missouri, New York, Ohio, Pennsylvania, Texas, Virginia, Wisconsin, and from the Province of Ontario, Canada.

"Block System" Draws Big Registration

The new type of co-ordinated teaching pleased all who attended the 1952 MCI session. Wednesday, March 12, included six integrated *surgical* subjects in the morning and two *obstetrical* and four *pediatric* subjects in the afternoon; Thursday presented six integrated *medical* subjects in the morning and six co-ordinated teaching periods on *adult health* in the afternoon; Friday proved extremely interesting with six integrated heart subjects on the morning program and a similar number of integrated periods on metabolic diseases in the afternoon.

This organization permitted the presentation of an educational program for general practitioners and all other medical men that was without parallel among postgraduate clinical conferences and state medical conventions. It resulted in large audiences for the speakers, even to the last paper on Friday afternoon.

Three Luncheons Crowded

Extra tables were rolled in for a talk on Rehabilitation by Howard A. Rusk, M.D., Wednesday noon; the Sykes Lecture presented by Lauren V. Ackerman, M.D., on Thursday noon attracted a full house to hear "Differential Diagnosis of Cancer." An all-time attendance record was chalked up for the Annual Heart Luncheon of Friday, March 14, when Samuel A. Levine, M.D., spoke on "The Importance of the History and Physical Examination in the Diagnosis of Heart Disease."

Publicity

A total of 1,215 inches of publicity appeared in Detroit and Michigan newspapers in connection with the 1952 MCI. These stories consisted of advance releases announcing highlights of the three-day meeting and spot news articles during the session.

The top human interest story surrounded the honors accorded Clayton Willison, M.D., Sault Ste. Marie, Michigan's Foremost Family Physician for 1951. Great importance was also given by newsmen to the honors and celebrations concerning James Milton Robb, M.D., Detroit, President of the American Academy of Ophthalmology and Otolaryngology, and Leo H. Bartemeier, M.D., Detroit, President of the American Psychiatric Association.

The Wednesday evening talk on Civil Defense by Norvin C. Kiefer, M.D., Washington, D. C., also received good attention from the press. Dr. Kiefer is Director of Health and Special Weapons Defense Division of the Federal Civil Defense Administration.

The scientific speakers on the program all had noteworthy and newsworthy topics which created a wide interest. From the standpoint of columns of newsprint, the 1952 Michigan Clinical Institute proved once again that the individual is primarily interested in reading about his health.

Thanks to Convention Workers

The Executive Committee of The Council, Michigan State Medical Society, at its March 20, 1952, meeting in Detroit, placed on its minutes a vote of thanks to all who helped to make the Sixth Michigan Clinical Institute in Detroit such an unusual success. Deserving special commendation are: E. F. Sladek, M.D., Traverse City, Chairman of the Committee on Arrangements and Program with the following members: Wilfrid Haughey, M.D., Battle Creek; Otto O. Beck, M.D., Birmingham; C. E. Umphrey, M.D., Detroit; L. Fernald Foster, M.D., Bay City; B. R. Corbus, MD., Grand Rapids; G. C. Penberthy, M.D., Detroit; P. S. Barker, M.D., Ann Arbor; F. H. Bethell, M.D., Ann Arbor; F. A. Coller, M.D., Ann Arbor; H. H. Cummings, M.D., Ann Arbor; H. A. Towsley, M.D., Ann Arbor; Louis Jaffe, M.D., Detroit; L. R. Leader, M.D., Detroit; R.

C. Rueger, M.D., Detroit; D. I. Sugar, M.D., Detroit; B. T. Montgomery, M.D., Sault Ste. Marie; C. L. A. Oden, M.D., Muskegon; C. A. Payne, M.D., Grand Rapids; W. Z. Rundles, M.D., Flint; D. B. Wiley, M.D., Utica; A. E. Heustis, M.D., Lansing, and E. I. Carr, M.D., Lansing.

Ubiquitous Hosts.—W. D. Barrett, M.D., P. T. Chapman, M.D., W. B. Cooksey, M.D., J. W. Hawkins, M.D., all of Detroit; F. D. Johnston, M.D., Ann Arbor; D. H. Kaump, M.D., J. J. Lightbody, M.D., R. M. McKean, M.D., G. C. Penberthy, M.D., H. L. Smith, M.D., E. D. Spalding, M.D., and G. L. Waldbott, M.D., all of Detroit.

Chairmen of Assemblies.—B. T. Montgomery, M.D., Sault Ste. Marie; H. A. Towsley, M.D., Ann Arbor; Louis Jaffe, M.D., Detroit; W. Z. Rundles, M.D., Flint; P. S. Barker, M.D., Ann Arbor; F. J. Smith, M.D., Detroit, and D. B. Wiley, M.D., Utica.

Press Committee.—C. L. Weston, M.D., Owosso, Chairman; A. B. Gwinn, M.D., Hastings; H. F. Dibble, M.D., Detroit, and R. A. Johnson, M.D., Detroit.

F. Maxwell Shuster, Cleveland, and Richard A. Aubrey, Detroit, loaned by the E. I. du Pont de Nemours & Co., Inc., for the entire period of the Institute, rendered untiring service.

Eugene Wiard and Margalee Magoon, Lansing, of the Michigan Health Council staff; Jack Pickering, science writer, *Detroit Times;* James Trainor, city editor, *Detroit Times;* Allen Shoenfield, science writer, *Detroit News;* Merle Oliver, feature writer, *Detroit News;* Ralph Reed, state editor, *Detroit News;* Ed Winge, science writer, *Detroit Free Press;* Dale Nouse, feature writer, *Detroit Free Press;* and Bud Mitchell, Radio Station WJR, Detroit.

The Woman's Auxiliary to the MSMS, through the efforts of the President, Mrs. R. S. Breakey, Lansing, and of Mrs. A. H. Whittaker, Detroit, manned the Beaumont Memorial Restoration Booth during the Michigan Clinical Institute at the Sheraton-Cadillac Hotel, Detroit. The Woman's Auxiliary was assisted by officers of the Michigan State Medical Assistants Society as well as by the Woman's Auxiliary to the Wayne County and Oakland County Medical Societies.

Thanks for the "Doodle Diaries" which were distributed to all registrants go to Michigan Medical Service.

What They Thought of the 1952 Michigan Clinical Institute

Lauren V. Ackerman, M.D., St. Louis, Missouri (guest essayist): "I have never been to a meeting that was so well organized. The contrast to the many meetings that I have previously attended was prominent. Needless to say, I thoroughly enjoyed myself. The meeting gave me an opportunity to see old friends and make new ones. Please thank everyone for me."

Truman G. Blocker, Jr., M.D., Galveston, Texas (guest essayist): "I enjoyed the meeting immensely and my only regret was that I was unable to be with such a fine group for the entire length of the meeting."

Garfield G. Duncan, M.D., Philadelphia, Pa. (guest essayist): "The Michigan Clinical Institute was a most enjoyable experience for me."

Richard H. Freyberg, M.D., New York City (guest essayist): "I enjoyed participation in the recent Michigan Clinical Institute and the opportunity to see so many of my good old friends. I heard a great many compliments for the excellent program you and your committee arranged. I was surprised to see how many stayed to the end."

Franklin M. Hanger, M.D., New York City (guest essayist): "May I congratulate you on the very successful meeting. I found my trip to Detroit both pleasant and instructive, and I appreciate the honor of being one of your invited speakers."

Norvin C. Kiefer, M.D., Washington, D. C. (guest essayist): "It was a pleasure to be with you in Detroit and to address the Medical Civil Defense meeting. I thoroughly enjoyed your meeting and certainly profited by it."

Edward J. McCormick, M.D., Toledo, Ohio (guest essayist): "Thanks so much for the kind hospitality which you extended to me on the occasion of my recent visit to Detroit. I enjoyed my trip and I do hope that I may have added a little bit to the fine meeting which was held in Detroit. Mrs. McCormick summed it up on the way to Ann Arbor when she said: 'The Michigan doctors are an outstanding group.' "

Raymond O. Muether, M.D., St. Louis, Mo. (guest essayist): "It was a pleasure to meet your group during the Michigan Clinical Institute. I enjoyed the entire meeting and if I was, in

some small measure, a factor in its success, I am more than happy."

Jay A. Myers, M.D., Minneapolis, Minnesota (guest essayist): "There was a splendid attendance and the doctors seemed to be interested in refinements in the diagnosis of tuberculosis with considerable emphasis on the use of the tuberculin test. The officials were exceedingly kind to me. The audience was attentive and I thoroughly enjoyed the day."

Howard A. Rusk, M.D., New York, New York (guest essayist): "It was indeed a pleasure to attend and participate in the program of the Sixth Michigan Clinical Institute. I thought it was a fine meeting and I enjoyed so much being with you. Never have I met such a hospitable group; I do appreciate their kindness."

Oscar Swineford, Jr., M.D., Charlottesville, Virginia (guest essayist): "Ubiquitous host George Waldbott took me in tow immediately on my arrival and entertained me most pleasantly."

Charles F. Wilkinson, M.D., New York, New York (guest essayist): "I really enjoyed the opportunity of participating in the Michigan Clinical Institute and wish to thank you for inviting me."

E. F. Sladek, M.D., Traverse City (General Chairman of Arrangements): I am certainly proud of the Michigan Clinical Institute attendance, the whole program and the way it went over. The comments were enthusiastic. Please congratulate and extend my thanks to the entire Committee on Arrangements for a grand and well-done job. Also tell the office force they were even more efficient than usual—if that is possible."

John G. Bielawski, M.D., Detroit, Executive Secretary, Michigan Heart Association (sponsor of Heart Day on Friday, March 14): "The experiment of combining Michigan Heart Day into the program of the Michigan Clinical Institute this year was, I think, a resounding success. We had a greater attendance at our morning scientific sessions and at the luncheon than we have had heretofore. I feel that combining the two meetings was of benefit to both Heart Day and the Michigan Clinical Institute. Please accept my sincere thanks for your splendid help and guidance in planning and organizing our part of the meeting and for the co-operation of the State Society as a whole."

James C. McMeel, M.D., South Bend, Indiana (President, Northern Tri-State Post-Graduate Medical Association): "The Michigan Clinical Institute held in Detroit was the finest medical meeting I have ever attended, and with God's help I shall be present at the next meeting as I profited very much from the manner in which the meeting was conducted."

V. B. Halbert, M.D., Sylvania, Ohio: "It took forty years of medical meetings to reach the best one I ever attended, the Michigan Clinical Institute in Detroit last month. Who cares or remembers, for example, that in 1813 Pierre Bretonneau of Tours distinguished dothienenteritis as a separate disease? What we got at this meeting was condensed, concise, usable and if not exhaustive at least not exhausting. Certainly, I am planning right now to attend the next Michigan Clinical Institute."

Max L. Durfee, M.D., Director, College Health Service, Oberlin College, Oberlin, Ohio: "The Michigan State Medical Society is to be congratulated on its Michigan Clinical Institute of 1952. For years you have been at the forefront of medical progress. This was my reintroduction to the Michigan medical scene after a thirteen-year absence, and the Institute made me proud of my medical origin. Thank you again. I shall surely make every effort to be with you at next year's meeting."

K. B. Schlotzhauer, M.D., Stratford, Ontario: "I enjoyed the Michigan Clinical Institute very much."

Leonard A. Glenn, M.D., Chatham, Ontario: "It was extraordinary in scope, in the most timely subjects, in such a luxurious setting and presenting the most recent developments of present day medicine and surgery. A spirit of friendliness, characteristic of the middle West, was noticeable among the members and the distinguished guests, and this was also present among the exhibitors, most of whom had classy displays of the latest and finest in modern equipment."

W. L. Percival, M.D., Windsor, Ontario: "I enjoyed the recent meeting of the Michigan Clinical Institute. Certainly, the committee members are to be congratulated on the well-organized program which offered a wealth of information for both the specialist and the general practitioner."

G. C. Penberthy, M.D., Detroit: "It was a good meeting and I compliment you as chairman."

(Continued on Page 637)

Now Basic Scie

Legislature Adopts MSMS Recommendations

S.B. 251 — *Basic Science Act*

Significant changes with far reaching effects were made in the Basic Science and Medical Practice Acts by the 1952 Michigan Legislature. Companion bills SB 251 and SB 301, drafted by the Michigan State Medical Society, were introduced containing amendments to the Basic Science Act and to the Medical Practice Act as recommended by the MSMS House of Delegates at the September, 1951, Annual Session.

Both bills were passed by the Legislature and approved by Governor Williams. The Basic Science amendments will take effect in August, 1952; the changes in the Medical Practice Act were given immediate effect.

Briefly, the amendments to the Basic Science Act will permit the Basic Science Board to approve those applicants who have successfully passed the basic science examinations in practically any other "basic science" state; interns and residents will be exempt from taking Basic Science examinations; subjects, successfully passed, need not be taken again; the membership of the Basic Science Board will be subject to change; and the records of that Board with respect to the reason for approval of applicants will be open to public inspection.

Reciprocity

Prior to the passage of SB 251 the Michigan Basic Science law required that other states having basic science requirements grant exemption to those persons certified by the Michigan Basic Science Board: If such exemption was not granted by any state, then Michigan could not grant exemption to persons certified by that state. SB 251 deletes this qualification and the Basic Science Board is empowered to waive the Michigan examination for any applicant who has been certified in another state providing that the requirements of the other state "are not less than those required by this (the Michigan) Act."

In order that the requirements of the Michigan Act be not greater than those of other states, the number of examinations required was reduced from 6 to 5 by the deletion of "public health and hygiene"; and the passing grade required was reduced from 75 to 70%. This sufficiently lowers the Michigan requirements so that legally the Michigan Basic Science Board may approve nearly every other state having basic science examinations. Thus, the State of Michigan will no longer be deprived of doctors of medicine because of lack of reciprocity.

Re-examination

The Basic Science law has in the past required that if an applicant failed in his examination in two or more subjects, he must show proof of additional study in all the basic sciences and take *all* the examinations over again. SB 251 alters the law to permit re-examination in only the subjects failed. No longer will it be necessary, for example, for an applicant who has passed his examination in chemistry to repeat that examination simply because he failed in anatomy and physiology or any other two subjects.

Residents and Interns

It has been held that residents in hospitals are engaged in the practice of medicine. This made it necessary for them to have temporary permits from the Michigan State Board of Registration in Medicine to practice. But such temporary permits could not be issued unless the applicant had passed his Basic Science examination or was approved through reciprocity. As a result, Michigan hospitals were having difficulty obtaining residents from those states not requiring basic science examinations or not reciprocating in basic science

(Continued on Page 610)

Really Work

Improving Basic Science and Medical Practice Act

S. B. 301 — Medical Practice Act

A sweeping revision of the Medical Practice Act was made by the 1952 Legislature at the request of the Michigan State Medical Society. Only two minor amendments—neither objectionable to MSMS—were added to the bill as originally introduced.

No major change previously had been made in the Act since its original passage in 1899. Fifty-three static years demanded modernization.

Temporary Annual Licenses

One of the most important changes was the amendment permitting the Board to grant *temporary* annual licenses to practice to "doctors of medicine who are pursuing postgraduate study" in approved training hospitals. The net effect of this provision, combined with the exemption of interns and residents from Basic Science (see analysis of SB 251), will be to remove barriers to advanced training in Michigan and encourage more prospective residents and interns to seek opportunities in Michigan hospitals.

Most radical change was in the 800 words deleted which contained obsolete portions of the Act. Language pertaining to such archaic schools of medicine as eclectic and physio-medical was deleted. The Board of Registration in Medicine will now consist of ten doctors of medicine, nine of whom are to be from the "regular" school of medicine and one to be a graduate of a homeopathic school.

Small amendments were made with respect to details involved in the meetings and business transaction of the Board.

A series of amendments approximately doubled the examination fees. The purpose of this amendment was to provide additional monies to the Board of Registration in Medicine in order that it may better carry out its duties under the Act.

Several changes were made relating to the enforcement of the Act and the defining of "unprofessional and dishonest" conduct. The Board will now have power to suspend licenses of doctors who have been found by the courts to be mentally incompetent. It will also be cause for suspension as grossly unprofessional conduct if a doctor is found to be guilty of "making representations or claims of ability to cure or relieve human ailments by secret methods." Authority to restore licenses and to issue subpoenas to compel the attendance of witnesses and production of records also was given the Board.

Citizenship or Second Naturalization Papers Necessary

Attention was given to the problem of displaced persons by requiring that the doctor of medicine, to receive a licence to practice, must be a citizen of the United States or have taken out his second naturalization papers. The practical effect of this amendment is to require a doctor coming to Michigan from a foreign country to wait 2½ years before he can obtain a permanent license to practice. In the meantime, however, he may take additional training under the temporary annual license provision of the law.

Increased legal and financial power given to the Michigan State Board of Registration in Medicine now removes previously existing barriers to maximum effectiveness in (a) enforcement against offenders and (b) encouragement of more residents and interns to train in Michigan hospitals, with the inevitable result that many of these well-qualified M.D.s will remain to practice in this state. Michigan medical practice will benefit by a modern workable law.

S.B. 251—BASIC SCIENCE ACT

(Continued from Page 608)

with Michigan—a total of 44 states. This situaation has been eliminated by specifically exempting from the provisions of the Basic Science Act those residents and interns training in Michigan hospitals. This exemption ties in with the permission given the State Board of Registration in Medicine to grant temporary annual licences (see accompanying article re Medical Practice Act changes). No longer will the Basic Science law serve as a barrier toward the obtaining of residents and interns for Michigan hospitals.

Records and Terms of Office

Objections to the *administration* of the Basic Science law have been heard repeatedly. Two steps, in addition to the liberalizations indicated above, were taken in SB 251 to assist in obtaining better administration. One of these was to require that the records of the Basic Science Board in respect to the certificates of eligibility issued, and *why* they were issued, be placed in the office of the Secretary of State where they will be open to public inspection. Should it be desirable to check on the reasons why a particular practitioner was approved by the Basic Science Board, it will be necessary only to check with a list filed with the Secretary of State.

In addition, the law will now provide that no member of the Basic Science Board who has served two consecutive terms (of six years each) "shall be eligible for reappointment until the expiration of a period of 10 years." It is of vital importance that devoted and hard working men continue to be members of this Board. The law as now amended permits an even wider latitude for good administration by encouraging periodic changes in the Board personnel resulting in new thinking and greater progress with the years.

Now the Basic Science law can work. The law has been improved. It now gives the Board both the legal opportunity and the social responsibility for effective administration.

DYNAMIC THERAPEUTICS IN CHRONIC DISEASE

(Continued from Page 559)

are frequently overlooked, but the personal, vocational, and social success of the handicapped person is dependent upon them.

The practice of rehabilitation begins with the belief in the basic philosophy that the doctor's responsibility does not end when the acute illness is ended or surgery is completed; it ends only when the patient is retrained to live and work with what he has left. This basic concept of the doctor's responsibility can be achieved only if rehabilitation is an integral part of medical care. Rehabilitation is only as sound as the basic medical service of which it is a part. The diagnosis and prognosis must be accurate, for it is upon them that the feasbility of retraining is determined.

Regardless of the type of disability, the responsibility of the physician to his patient cannot end when the acute injury has been cared for. It ends only when the physician has taken the responsibility for seeing that proper referral has been made to those agencies and institutions which are equipped to rehabilitate and retrain the patient with a residual physical disability. The physician who fails to see that those patients under his care receive the full benefits of modern methods of medical rehabilitation and retraining is in the same category as the physician who still persists in using dietary restriction alone in the management of diabetes when insulin is available, for medical care is not complete until the patient has been trained to live and work with what he has left.

GOVERNMENT GIVES NOTHING FREE

Oscar Ewing now wants the federal government to finance scholarships for 50,000 high school graduates every year, and the President is backing him by budgeting 30 million dollars to pay for the scheme.

Commenting on the proposal, the *Charlotte* (N. C.) *Observer* said, editorially: "It has long been an accepted principle that public education is the function of the state and not of the federal government. But not until Oscar Ewing came on the scene was it ever suspected that the United States government was obligated to provide a college education for anybody.

"Whenever Mr. Ewing comes forward with one of his devices to give Washington bureaucrats a stranglehold on another aspect of life in this so-called free America, we should remember that the Supreme Court has held that the Federal Government has a right to regulate whatever it subsidizes.—A.M.A. Secretary's Letter, May 16, 1952.

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

A special detection project to determine the prevalence of venereal disease and tuberculosis in known high incidence areas was undertaken May 1 in Detroit under joint sponsorship of the Michigan Department of Health and the Detroit Department of Health. It will continue to July 15.

Areas to be surveyed will be selected on the basis of known high incidence of venereal disease as determined by records of the Detroit Department of Health. It is assumed, because of the socio-economic relationship, that these areas will also be high in tuberculosis.

Plans call for the establishment of thirty to sixty stations for taking blood samples of approximately 75,000 people. Two mobile x-ray units from the State Health Department and one from the Detroit Health Department will be placed in operation in conjunction with the blood sampling stations so that chest x-rays can be obtained of the same persons who volunteer for the blood tests.

Blood samples will be sent to the State Health Department Laboratories for analysis and the x-rays will be processed in the Department's Division of Tuberculosis and Venereal Disease Control.

Positive venereal disease findings will be reported to the Detroit Social Hygiene Clinic. Indigent persons found to have venereal disease will be treated in the clinic. Others will be referred to practicing physicians.

Chest x-ray films will be sent to the Detroit Health Department for interpretation and follow-up.

* * *

Anthrax, which has recently appeared among animals in Michigan, is primarily a disease of animals and is rarely transmitted to man. The animals most commonly involved are sheep, cattle, horses and swine. Many other species are infected but the ones mentioned are of chief importance. Dogs, rats, barnyard fowl and carrion birds are resistant to infection but are important due to the fact that if they are allowed to feed on animals who died from anthrax, they become a means of disseminating widely the spores of anthrax. Flies are another means of widespread dissemination.

Man may become infected by handling hair, wool and hides from infected animals or by coming in contact with the flesh, blood and feces of infected animals or products, such as bone meal, made from the bones of infected animals.

Man is generally infected by the inoculation of the anthrax spore into a wound or a scratch. Rarely, infection in man follows the inhalation of anthrax spores or the ingestion of insufficiently cooked meat from an animal who had anthrax. Man may also be infected mechanically by blood-sucking flies.

By far the commonest route of infection is the cutaneous route so the lesions will generally appear on the exposed parts of the skin. The cutaneous lesion (malignant pustle) has a characteristic evolution and appearance. It begins as a small red indurated area, in the center of which a vesicle develops. This vesicle is soon followed by satellite vesicles. The organism may be demonstrated easily in this early lesion. The surrounding tissues become edematous. Finally the center of the lesion softens and becomes necrotic, and a characteristic dark brown eschar is formed. The lesion itself is not painful but the regional lymph glands become swollen and tender. Malaise, fever and general prostration develop in keeping with severity of the disease. In from 10 to 20 per cent of untreated cases there develops a progressive cellulitis, overwhelming septicemia and death.

* * *

One of the less well-known services of the Department laboratories was given recently to a physician in a small northern Michigan town. He attended a family with several members suffering from what appeared to be severe poisoning. Investigation revealed that the mother had used what she thought was baking powder but proved to be louse powder on examination of the scratched-over label. The doctor suspected arsenic poisoning, so he sent the powder by State Police to the Department Laboratories for analysis. In telephoning the laboratory, he said that he had tried to get the antidote, BAL, but that none of the local drug stores had it.

The state trooper waited while the laboratories confirmed the presence of arsenic in the powder, and when he left he took with him a supply of BAL. No one died, but several people were very sick.

The laboratories carry stocks of both common and unusual antidotes and in an emergency when poisoning is suspected they are always willing not only to diagnose the poison but to make the antidote swiftly available to any physician anywhere in the state.

* * *

A section of Disaster Health Services has been set up temporarily in the State Health Department to spend full time on developing a comprehensive state civil defense plan for emergency health services and special weapons defense. Serving on the staff are a Department physician, public health nurse, veterinarian, public health dentist and a hospital administrator from a Detroit hospital.

* * *

Some 700 public health workers, allied professional workers and interested laymen from all over Michigan are expected to meet in Detroit May 14 to 16 for the 31st Annual Michigan Public Health Conference. The theme of the Conference will be "Working Together."

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Two general sessions will feature speakers on topics of interest to all groups and a full day will be given over to discussion sessions for the specialties represented. Program committees have been at work for weeks on the group meetings for health officers, public health dentists, public health nurses, those interested in venereal disease control; sanitarians, nutritionists and health department clerks.

* * *

Flood relief measures figured prominently in Division of Engineering activities in early April. Engineers from the Department worked with local health departments in shoreline areas where people were forced from their homes, helping in surveying, rehabilitating homes and conducting demonstrations of chlorination of flooded wells. The Commissioner issued a statewide warning against possible outbreaks of dysentery, urging boiling of water, and advised vaccination against typhoid where indicated.

Since a rise of 18 inches is expected in lake levels through June and July, communities were urged to plan for necessary evacuation centers with provision for water, food, and safe waste disposal.

* * *

Detection of the organisms is best done by inoculation of white mice with material from the lesion, blood, tissues, or articles suspected of being contaminated; this technique screens out nonpathogenic organisms. Direct microscopic examinations of material from a cutaneous vesicle may reveal Gram-positive rods and permit a tentative diagnosis which should be confirmed by mouse inoculation.

At the present time the treatment of choice is the administration of penicillin in total doses as large as four or five million units if necessary. Ellingson (1946) treated twenty-five cases of proven cutaneous anthrax by giving thirty thousand units of penicillin every three hours around the clock until the anthrax bacillus had disappeared from the lesion and the patient appeared clinically well. The penicillin of choice now would be any one of the preparations which guarantee a therapeutic level for twenty-four hours or more per injection.

From the point of view of prevention of cutaneous anthrax those persons who come in close contact with animals or animal hair, wool, hides, should pay close attention to minor cuts, abrasions or scratches. These should be treated by the application of mild (2 per cent) tincture of iodine, since the anthrax bacillus is sensitive to the halogens.

* * *

The greater longevity of women is shown by figures of the Registrar-General of Britain. In the years 1946 and 1947, the number of deaths of persons aged a hundred years or over, was 232; of these 191 were women. Two of these reached 108. The highest male record was 106, two attaining that age.

* * *

A medical statistician imparts the following information about what the human body does every twenty-four hours: "Your heart beats 103,689 times; your blood travels 168,000,000 miles; you breathe 23,240 times; you turn in your sleep twenty-five to thirty-five times; you eat three and one-half pounds of food and you speak 4,800 words."

In Memoriam

WILLIAM M. BELL, M.D., of Detroit, died March 18, 1952, at the age of fifty-nine.

Dr. Bell had practiced in Detroit since 1925. Previous to that, he had practiced in Jackson after his graduation from the University of Michigan Medical School in 1919.

At the time of his death, Dr. Bell was on the staff of Mt. Carmel Mercy Hospital, Detroit.

He is survived by his wife, Lora, and six children. They are Miss Jane Mary Bell, William B. Bell, W. Richard Bell, Mrs. Doris Peck, Mrs. Betty Kerr, and Alan Schroeder.

SAMUEL L. GREKIN, M.D., of Detroit, died March 1, 1952, at the age of fifty-six.

Dr. Grekin, a surgeon, had practiced in Detroit for the past quarter of a century following his graduation from the Wayne University College of Medicine in 1926.

He was a member of the Wayne County Medical Society and a veteran of World War I.

Dr. Grekin is survived by his wife, Hilda; a son, James; one brother, and three sisters.

JOHN J. MCCANN, M.D., of Ionia, died March 19, 1952, at Miami, Florida, where he was fatally injured in a traffic accident. Dr. McCann was seventy-four.

For the past forty-seven years he served the community of Ionia as a general practitioner. He was graduated from the University of Michigan Medical School in 1905.

He was a perennial secretary of the Ionia-Montcalm County Medical Society and a past president of the Ionia County Memorial Hospital. Besides being active in community affairs, Dr. McCann had been Ionia health officer for many years.

Organized Medicine lost a valued laborer with the passing of Dr. McCann.

MILTON M. ROZAN, M.D., of Lansing, died February 25, 1952, at the age of forty-nine.

For the past twenty-two years he served the community of Lansing as an obstetrician.

Dr. Rozan was graduated from the University of Michigan Medical School in 1929. He was a member of the Ingham County Medical Society, the American Board of Obstetricians and Gynecologists, the Detroit Gynecology Society and the Central Association of Obstetrics and Gynecology. He was also a Fellow in the American College of Surgeons as well as being secretary-treasurer of the Lansing Journal Club.

During World War II, he served for forty-two months in the U. S. Navy Medical Corps and rose to the rank of Commander before his separation from Service in 1945. In that period, he was stationed at the Portsmouth Naval Hospital in Virginia where he served as obstetrician and gynecologist. Later, he became senior medical officer at the naval base in Fort Lauderdale, Florida. In addition, he was stationed at the naval hospital at Norfolk, Virginia.

Dr. Rozan is survived by his wife, Ruth; a daughter, Kristine; his mother, Mrs. Lena Rozan, of Lansing; and two brothers, Josef S. Rozan, M.D., of Lansing, and William Z. Rozan of Houston, Texas.

WHY DEMORALIZING INACTIVITY?

(Continued from Page 600)

are utterly unable to see any justification for this provision and recommend that it be repealed.

The Social Security taxes which have been paid are described as truly a social security. The man who has paid has had no choice but has been compelled to pay.

There is a bill in Congress now to extend this work allowance to $100 per month, but there is still no justification for any penalty. This bill recognizes a real injustice. Why not correct the injustice completely? The amount of work possible by these older people who still have energy and ambition will not too greatly unbalance our economy. And if it did, what of it? Is not the older man a citizen with a right to earn his own living?

A CHALLENGE

WE HAVE outlined a few of the major problems which must be answered if we, as doctors, are to give our patients the security, the happiness, the confidence, the morale which must prevail in order to be successful doctors in our new field, Geriatrics. Many things go to make up the well-being of men. We cannot keep them physically healthy if we allow them to become psychiatric or sociologic problems. A healthy man must be a mentally alert and confident man.

Problems of living involve much more than food, shelter, clothing, and a few medicines to care for illness. The mind must be protected. A man must be allowed to keep some semblance of activity. He cannot just sit and rust. Do we have the answer? If not, we must put our minds to it and find an answer.

This is the great challenge of our times for the medical profession, which has the mentality to use. Will we use it?

Meat and its applicability in the Dietary Management of Atherosclerosis

Contrary to the former belief that serum cholesterol levels are primarily related to ingested animal fat and consequently to dietary cholesterol, it now appears that the total amount of fat in the diet, not its source or cholesterol content, is a more important factor in determining the blood cholesterol concentration.[1,2,3,4] Clinical observation has shown that ingestion of vegetable fat—which contains no cholesterol—will, like fats of animal origin, raise the serum cholesterol level.[3, 5]

Recent basic research on the influence of fats and cholesterol on human health has done much to further progress in the fight against atherosclerosis. It will serve well in dispelling the mistaken fear that reasonable amounts of foods of animal origin predispose the individual to this vascular disease.[6] As a matter of fact, a dietary inadequate in essential nutrients but providing too many calories and too much fat from *any* source may well be an important factor underlying the deposition of fat and cholesterol in the arteries and liver.

Cumulative evidence indicates that lowered blood levels of cholesterol may be effected by restricting the total fat intake.[1] Except in instances of refractory hypercholesteremia, in which a daily fat intake as low as 10 Gm. may not reduce cholesterol levels to normal, diets containing 20 to 30 Gm. of fat, or even more, often produce low cholesterol blood levels. In the clinical application of this principle, various palatable, low fat diets which supply three servings of meat daily (containing 18 Gm. of fat) have recently been suggested for the dietary management of arteriosclerosis and for enlisting the cooperation of patients.[1] The meat servings were chosen from a large variety of cuts and kinds of meat (fat trimmed off, as lean as possible). Meat adds to the eating appeal of the fat-restricted diet and contributes important amounts of biologically complete protein, the B group of vitamins including B_{12}, and food iron—all of which are important for a good state of nutrition in the atherosclerotic patient.

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1. Hildreth, E.A.; Hildreth, D.M., and Mellinkoff, S.M.: Principles of a Low Fat Diet, Circulation *4*:899 (Dec.) 1951.
2. Bloch, K.: The Intermediary Metabolism of Cholesterol, Circulation *1*:214 (Feb.) 1950.
3. Keys, A.; Mickelson, O.; Miller, E.V.O., and Chapman, L.B.: The Relation in Man Between Cholesterol Levels in the Diet and in the Blood, Science *112*:79, 1950.
4. Gubner, R., and Ungerleider, H.E.: Arteriosclerosis, a Statement of the Problem, Am. J. Med. *6*:60, 1949.
5. Hildreth, E.A.; Mellinkoff, S.M.; Blair, G.W., and Hildreth, D.M.: The Effect of Vegetable Fat Ingestion on Human Serum Cholesterol Concentration, Circulation *3*:641 (May) 1951.
6. King, C.G.: Trends in the Science of Food and Its Relation to Life and Health, Nutrition Rev. *10*:1 (Jan.) 1952.

Correspondence

January 18, 1952

Dear Dr. Haughey:

Your letter of December 4, 1951, to Dr. Foster has been referred to me. The Bay-Arenac-Iosco County Medical Society has realized its responsibility in the Community Education Program and has selected as a field of special endeavor, the sponsorship of a series of the assumption of a place in the Community Co-Sponsored Series of Adult Education Courses at Central High School in Bay City Junior College.

Mr. Robert Stuart, Director for the Department of Continuing Education Program for Adults of Bay City has secured the co-operation of the majority of the community and professional groups in this series and the Bay County Medical Society will furnish eight speakers for a sixteen-hour course in "Medical Care Within the Home and Community."

It is perhaps of considerable interest that none of the prospective lecturers who were approached were unwilling to contribute their time and it is felt that it may be possible to work up some sort of a paper on the place of non-technical medical subject in a continuing education program for adults.

It was felt by this Society that this particular project was significant in fostering a better understanding between the profession and the public, at the same time providing material whereby those interested could improve the community in which they live.

Sincerely,

R. E. Fisher, M.D.

February 12, 1952

Dear Doctor Haughey:

In answer to your letter of December 5, 1951, requesting a report on our County Medical Society project, I am happy to report that we are at present engaged in doing the following physical examinations free of charge: (1) all girl scouts, boy scouts and cub scouts, prior to summer camp; (2) all high school athletic exams for track, football and basketball; (3) general physical fitness exams for all high school seniors; (4) any necessary athletic physicals required in connection with the city recreation department, which may include boxing or other sports.

Sincerely,

Samuel Osborn, M.D.,
Secretary, Manistee County Medical Society

March 4, 1952

Dear Dr. Haughey:

In response to your letter of December 5, 1951, let me say that this small Medical Society has several very ambitious projects of which we are very proud.

First, free immunization of school children has been carried on in this county for at least twenty years through the personal efforts of local private physicians.

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This was organized by Harry B. Zemmer, M.D., of Lapeer, who began immunizing all Lapeer City school children whose parents were desirous of having their children protected against contagious disease. This project has been promoted until this service has been made available, free of charge, to all town and rural schools in the county. The motherhood clubs organize immunization clinics with the assistance of the teacher in any school where the service is requested and some local doctor with his nurse gives D-P-T and smallpox vaccine. This is done annually, in most schools, at the beginning of the school year.

Our newest project is the Lapeer County Medical Foundation, organized this year by the Lapeer County Medical Society with lay assistance. Its purpose is to improve medical service to the people of Lapeer County. Its scope will depend on the amount of money which is available from time to time. At present, we have established two annual scholarships for the four years of medical school of $500.00 each per year. These scholarships are in honor of the memory of two fine Lapeer County physicians, Herbert M. Best, M.D., and William J. Kay, M.D. In the first year of existence of the scholarships, one has been awarded to a senior at Tufts Medical School and one to a freshman at the University of Michigan Medical School. It is the purpose of these scholarships to encourage young men to go into rural practice and assist them financially. We feel that we are thus helping the cause of better medicine in two ways. We hope that the Foundation will extend its activities into other fields as funds become available.

Very sincerely,

JAMES R. DOTY, M.D.,

President, Lapeer County Medical Society

GOVERNOR WARREN AND SOCIALIZED MEDICINE

(Continued from Page 546)

the duty of our country and the duty of everyone in government to try to find a way to make that good medical care that we have in this country available to those who need it without any socialization of medicine whatsoever.

* * *

HUIE: So as a Republican President, your business would not be to repeal anything that's been done but simply to tidy it up and be a better housekeeper. Is that, in effect, what you stand for?

WARREN: Yes, yes. I don't know of any social program that has been initiated by the Federal Government in recent years that I would repeal, and I might say to you also at the same time, that I don't know of any such social welfare program that wasn't adopted by a bi-partisan vote in the Congress.

MEDICAL NEWS

MICHIGAN AUTHORS

Otto Tod Mallery, Jr., M.D., of Ann Arbor, is the author of an article, "Graduate Education for Physicians in Industrial Health and Occupational Medicine," published in *Industrial Medicine and Surgery,* March, 1952.

F. X. Krynicki, M.D., of Detroit, is the author of an article, "The Chronic Low Backache," published in *Industrial Medicine and Surgery,* March, 1952.

Henry Reinfert, Jr., M.D., of Ann Arbor, is the author of an article, "Post-Graduate Course of the American College of Chest Physicians," published in *Industrial Medicine and Surgery,* March, 1952.

A. D. Ruedemann, M.D., of Detroit, is one of the authors of an article, "Symposium: Orbital Implants After Enucleation," published in the Transactions of the American Academy of Ophthalmology and Otolaryngology, January-February, 1952.

Harris B. Schumacker, Jr., M.D., of Indianapolis, Indiana, is the author of an article, "Aneurysms and Arteriovenous Fistulas," in the *General Practitioner of Australia and New Zealand,* January 15, 1952, which was reprinted from THE JOURNAL of the Michigan State Medical Society, February, 1951.

The General Practitioner of Australia and New Zealand for February, 1952, republished an article by **Raymond W. McNealy, M.D.**, and **John W. McCallister, M.D.**, "Parotid Gland Tumours and Their Surgical Management" originally published in THE JOURNAL of the Michigan State Medical Society in April, 1951.

Samuel J. Nichamin, M.D., of Detroit, is the author of an article, "Pleurodynia in Children," published in *The Jourrnal of the American Medical Association,* March 22, 1952.

H. L. Stewart, Jr., M.D., of Detroit, is the author of an article, "Duration of Pregnancy and Postmaturity," published in *The Journal of the American Medical Association,* March 22, 1952.

Lida Mattman, Ph.D., of Detroit, is one of the authors of an article, "Geotrichum in Blood Stream of an Infant," published in *The Journal of the American Medical Association,* April 5, 1952.

Dan P. Boyette, M.D., Ahoskie, N. C., and **Fred L. Rights, Ph.D.**, of Detroit, are the authors of an article, "Heretofore Undescribed Aërobic Spore Forming Bacillus in Child with Meningitis," published in *The Journal of the American Medical Association,* April 5, 1952.

E. Dwight Barnett, M.D., formerly Director of Harper Hospital Detroit, is the author of an article, "Comparing Patient Costs in Wards and Private Rooms, published in *The Journal of the American Hospital Association,* April, 1952.

Postgraduate Training.—The following members of the Michigan State Medical Society attended postgraduate courses at the Cook County Graduate School of Medicine in March: Gordon T. Brown, M.D., Detroit; Edward P. Gunderson, M.D., Frankfort; Hugh M. Jardine, M.D., West Branch; Burke W. Arehart, M.D., Detroit; Russel C. Rowan, M.D., Albion.

* * *

Mental Health Group.—The first meeting of the new AMA Committee on Mental Health was held at Chicago headquarters, March 27. Dr. Leo Bartemeier, Detroit, was elected chairman and Dr. Lauren H. Smith, Philadelphia, vice chairman. The chairman, vice chairman, and Dr. Walter H. Baer, Peoria, were chosen to serve as the executive committee of the group. Many problems in the fields of psychiatry and neurology were discussed and plans were formulated for other meetings of the committee in the near future.

* * *

AMA and Hoover Report.—The AMA has explained its opposition to the present attempt by medical groups to enact the provisions of the Hoover Report as provided in S. 1140.

While certain minor suggested changes have been made, the revised bill (S. 1140) still includes the transfer of the major military and all Veterans Administration hospitals —a transfer opposed by the A.M.A. Also, no provisions were incorporated which would clearly define the extent of the government's responsibility for furnishing medical care, particularly to veterans with nonservice-connected disabilities and the dependents of service personnel. Neither did it provide for the establishment of a federal board to control the distribution of beds among the several federal hospital services to insure joint planning in the field of hospital construction and to determine the need and location of proposed new hospitals in the United States."

* * *

The Berrien County Rheumatic Fever Diagnostic and Consultation Center, organized under the auspices of the Berrien County Medical Society was officially opened on May 2, 1952, at St. Joseph-Benton Harbor Memorial Hospital, St. Joseph, Michigan. The Center offers diagnostic and consultation service with regard to Rheumatic Fever and Rheumatic Heart Disease on referral by physicians and will serve Berrien County and parts of Van Buren and Cass Counties. The Center is operated by a committee of the Berrien County Medical Society appointed by R. C. Conybeare, M.D., President, consisting of M. J. Feeley, M.D., chairman; F. H. Lindenfeld, M.D., and John Manning, M.D.

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Marriage Licenses Decrease Sharply.—The marriage license boom that began at the start of the Korean war has come to an end, according to U. S. Public Health Service statistics. For all of 1951, a total of 1,621,159 licenses were issued, compared with 1,691,673 for 1950. However, in the first six months of 1951 licenses were 6 per cent ahead of the same period in 1950, but in the last half of 1951 they had declined to 12 per cent below the total for the second half of 1950.

* * *

UMW Picks Sites for Most Hospitals.—United Mine Workers Welfare and Retirement Fund's three Memorial Hospital Associations have engaged architects and selected locations for most of the 10 hospitals they will build in Kentucky, Virginia and West Virginia. Largest single hospital in the program will be at Beckley, W. Va., with a capacity of not less than 200 beds.

* * *

Wage Stabilization Board has established a separate policy on health and welfare plans for the *construction industry.* It uses contributions rather than benefits as the criteria and in several other respects varies from the policy governing most other industries. Under the construction industry policy, recommended by the Construction Industry Stabilization Commission, the following will prevail: (a) new plans and liberalizations must receive Commission approval, (b) negotiations will determine kind of benefits, but these must comply with established WSB criteria, (c) employer contributions generally will be limited to 7½ cents per hour, although benefits, not contributions, are the criteria in other industries, (d) contributions may start before all details have been approved, and (e) once a plan is approved as an "area practice," any contractor may conform without getting separate WSB approval.

* * *

Defense Production Act Should Expire.—"Even when prices are below ceiling, which many are, the OPS compliance problem remains. The grind of administrative machinery is still there; the interpretative work of legal counsel is still there; the labors of great corps of accountants and clerks are still there; the time consuming job of analyzing regulations and making reports is still there; the particular situation of customers and suppliers is still there; prospects of new regulations with another new wave of interpretations, analyses, conputations, surveys, studies, investigations, determinations, reports, protests and appeals are still there.

"These are the difficulties that are tangible, physical and measurable. As they boil and flame in the mind of management, their fusion creates a new substance which is psychological. Its effect is poisonous. It may be described as American psychology thrown into reverse. Confidence is turned into doubt; courage becomes fear, resourcefulness is replaced by caution; planning is turned into waiting; the taking of normal business risks gives way to a drawing-in of all commitments; the sense of freedom is thwarted by a feeling of imprisonment. The dynamic motivation which is the very essence of business progress is stifled."—WILLIAM J. GREDE, president of the National Association of Manufacturers, before the Senate Banking and Currency Committee relative to the proposed extension of the Defense Production Act.

Thousands Waiting for Operations.—The *Chicago Daily News* reports that in Britain, where medicine has been socialized for nearly four years, there are 124,587 persons waiting to be admitted to hospitals for operations. "There's a scarcity of both beds and nurses plus a bigger demand for operations which now are 'free'," the story said.

* * *

A new effort is being made to induce about 1,000 physicians rated in Priority I of the doctor-draft to sign up for service in the military reserves. Men involved were educated at government expense during World War II or deferred from service to continue their medical educations, but so far have not applied for reserve commissions.

National Advisory Committee to Selective Service (Dr. Howard A. Rusk, Chairman) declares: "Various state committees, as well as the National Committee, have been deeply concerned over these individuals who did not at the time of special registration apply for a commission and have not subsequently done so *while other more willing individuals have accepted commissions and many of them are now serving in the armed forces.*"

Selective Service Director Louis B. Hershey says these "inequities" can only be prevented by calling up physicians through Selective Service (not the reserves).

* * *

H.R. 7426 Deductions from Income for Retirement.—By Mr. Coudert, of New York, April 7. *To provide that certain amounts expended by individuals for the purchase of non-interest-bearing United States bonds may be deducted in computing net incomes.* Referred to the Committee on Ways and Means.

Comment: Would enable taxpayers to lay aside savings during more productive years for disability and retirement eventualities. Taxpayers would be permitted to purchase United States bonds up to 10% of their adjusted gross income. Bonds would be non-interest bearing, have no fixed maturity, be payable in full on demand, and would be issued only to individuals. The proceeds received by the U. S. from the sale of these special bonds would be used to retire outstanding, high interest-bearing bonds.

A deduction from income would be permitted during the years in which bonds were purchased but the proceeds would be taxable when sold by the individual on the same basis as any other income. If the individual dies, proceeds would be included in his gross estate.

Representative Coudert, previously in this Congress, introduced two other bills to accomplish the same purposes, H.R.3456 and H.R.5847. The first bill provided for postponement of federal income taxes for a limited portion of income which could be contributed to a restricted retirement fund. The second bill would allow income tax deduction for premiums paid on life insurance and annuity contracts.

* * *

The Dickinson-Iron County Medical Society will be hosts to the Upper Peninsula Medical Society meeting in Iron Mountain, Michigan, June 27 and 28, 1952. Scientific papers will be presented by outstanding physi-

cians formerly of the Upper Peninsula. A program for the ladies is being planned by the Woman's Auxiliary. The public meeting will be held Friday evening, June 27, with Rear Admiral C. A. Swanson, former Surgeon General of the Navy, as the speaker. The annual banquet will be held Saturday evening, June 28. Technical exhibits will be shown.

* * *

Federal Government and Blue Cross-Blue Shield.—It is a fundamental fact that the Government does not insure; cannot buy insurance from private firms.

In the course of its survey of federal medical services, the AMA special committee, headed by Dr. Elmer L. Henderson, inquired into the feasibility of the Federal Government's being insured by private companies. Frank G. Dickinson, Ph.D., head of the Bureau of Medical Economic Research, who later prepared a detailed memo that to the best of his knowledge the Government has never purchased insurance from a private company or firm. There may be a few isolated and unimportant instances, he said, but the concensus is that "the government has probably never been an insured of a private insurer."

Dr. Dickinson's memo, in the April 12, *Journal AMA,* said in part:

"The federal government from the standpoint of insurance is 155 million people, the broadest possible base for the distribution of risk. . . . It is larger than all insurance companies combined because it is the sovereign power. . . . The federal government should not buy accident and health insurance from Blue Cross or Blue Shield plans or insurance underwriters. The very notion of the federal government as the sovereign power eliminates it from any rational consideration of being made an insured of an insurance company.

"There is nothing in the history, theory and principles of insurance to warrant the federal government becoming an insured of a private insurance company. It would make the sovereign power of government subservient to a private business institution. It would be contrary to public policy."

* * *

Penicillin Prices Reduced.—Upjohn, Eli Lilly, and other companies have announced a reduction in the price of penicillin for the second time in three months. Improvements in production methods are chiefly responsible for the continuing downward trend of prices. Little more than ten years ago, penicillin cost about eighty times the price today. In addition, improved forms of the drug are ten times as potent and last six times as long as the old product.

* * *

The inauguration of Dr. Louis H. Bauer, Hempstead, N. Y., as president of the American Medical Association, will be heard on nationwide radio broadcasts at 7:30 p.m. (CDST) Tuesday, June 10.

* * *

Specific Substance Found for Use Against Radiation.—Dr. Shields Warren, Director of Atomic Energy Commission's Division of Biology and Medicine, reports that a specific substance has been found to work against radiation poisoning and that the discovery is of "very real significance." In testimony before the House Appro-

priations Committee, Dr. Warren said it has been determined that an emulsion of bone marrow will protect experimental animals against radiation, and added:

"The material in itself is not so important as the fact that one gets protection. That is, the bone marrow itself is not so important as the fact that you can get protection by the substance that is formed there. This is an injection from which we ought to be able to get a specific chemical substance that can be used here. This is the same sort of scientific lead as was the failure of bacteria to grow on mold-contaminated plates, when the initial discovery of penicillin was being foreshadowed. It is very early in the process, but this is the first time a specific substance has been found which will work against radiation."

* * *

Meyer O. Cantor, M.D., and **Leonard Haking, M.D.,** of Detroit, are authors of an article entitled "Carcinoma of the Pancreas with Roentgen Pattern of Nontropical Sprue," published in *The Journal of the International College of Surgeons,* November, 1951.

* * *

Michigan speakers on the program of the American Goiter Association at its annual meeting in St. Louis, Missouri, May 1, 2 and 3, included Brock E. Brush, M.D., Detroit, William S. Reveno, M.D., Detroit, and Herbert Rosenbaum, M.D., Detroit.

* * *

The position of Director of Public Health, Kalamazoo City-County Health Department, is now open. Applications should be submitted to the Board of Health, City of Kalamazoo, City Hall, Kalamazoo, Michigan, in care of the Office of the City Manager.

* * *

Civil Defense Administration desires full time medical directors to handle medical civil defense problems arising within its regional geographical areas.

Region 4 includes Michigan, Ohio, and Kentucky; headquarters are located at 33467 West Lake Road, Avon Lake, Ohio (near Cleveland). A salary of $10,800 per year is paid the civil defense medical directors. For information, write Reed M. Winegardner at Avon Lake, Ohio.

* * *

The Michigan Society Executive Secretaries Conference, sponsored by the Michigan State Medical Society on April 16 in Lansing, was attended by Mrs. Lucy Bartlett, Muskegon, Executive Secretary of the Muskegon County Medical Society; Miss Else Kolhede, Detroit, Executive Secretary of the Wayne County Medical Society; Mrs. Flora Mayer, Ann Arbor, Executive Secretary of the Washtenaw County Medical Society; Mrs. Sara Burgess Warren, Executive Secretary of the Genesee County Medical Society; and Carl G. King, Business Manager of the Saginaw County Medical Society.

After a tour of the new home of the Michigan State Medical Society, at 606 Townsend, the County Executive Secretaries surveyed the activities of the State Medical Society and its various departments. The services available to county societies and to the individual doc-

tor of medicine were outlined by Secretary L. Fernald Foster, M.D., Bay City, Executive Director Wm. J. Burns, Lansing; Public Relations Counsel Hugh W. Brenneman, Lansing; Field Secretaries Daniel E. Ford, Detroit, and Stuart A. Campbell, Grand Rapids; Assistant Executive Director R. J. Roney, Secretaries Helen Schulte and Geraldine Chapman; and by E. H. Wiard, Lansing, Executive Secretary of the Michigan Health Council.

* * *

The General Practice Group of the University of Tennessee has established a postgraduate clinical training program for general practitioners, approved by the American Academy of General Practice for its members. One week to one month of training is offered in a program designed for the general practitioner, on an individual basis according to his needs. No fee is charged for this training. For information write General Practice Office, University of Tennessee, Memphis, Tennessee.

* * *

LeRoy A. (Cap) Potter, long-time inspector for the Michigan Department of Health-Michigan State Board of Registration in Medicine, was elected honorary member of the Ingham County Medical Society on March 18, in recognition of his work in enforcement of the Medical Practice Act.

Congratulations, "Cap" Potter!

* * *

The Michigan Medical Assistants Society was featured in the February Number of *Medical Economics*. The story included part of a letter written by Helen M. Huskens, R.N., of Bay City, a member of the M.M.A.S.

* * *

Canon Robert Bohaker, Detroit, presented a talk on "The Healing Mission" before the Wayne County Academy of General Practice on March 12. Canon Bohaker outlined the work in the psychosomatic field as conducted at St. Paul's Episcopal Cathedral.

* * *

The Genesee County Medical Society announces that its eighth Annual Cancer Day is scheduled for Wednesday, April 9, 1953. The meeting will be held at Hurley Hospital and the dinner will be at the Durant Hotel, Flint.

* * *

Hack Shoe Company announces a new store building being erected on East Warren at Yorkshire. The store will be a children's branch duplicating the three-year-old branch on Livernois in the Williamsburg Row. The Hack Company will continue its main store in the Mutual Building, Detroit, where it has been located for twenty-seven years.

* * *

The American Congress of Physical Medicine will hold its thirtieth annual scientific and clinical session August 25-29, Roosevelt Hotel, New York. For information and program, write the Congress at 30 North Michigan Avenue, Chicago 2, Illinois.

* * *

"Serpent-Wreathed Staff" is the title of a 402-page novel by Alice Tisdale Hobart which, in its last forty

or fifty pages, turns into an amazing propaganda piece for national compulsory health insurance. AMA Secretary George F. Lull, M.D., states: "This sounds as if Mrs. Hobart knocked out the last fifty pages at a desk piled high with pamphlets, speeches, and news releases handed out by Federal Security Administrator Ewing and the Committee for the Nation's Health."

* * *

University of Pittsburgh School of Medicine announces a postgraduate symposium on the basic sciences related to Anesthesiology, June 2-6, 1952. Registration fee is $25, with the course limited to fifty participants. For full information, write Chairman of Committee on Graduate Medical Education, University of Pittsburgh School of Medicine, 3941 O'Hara Street, Pittsburgh 13, Pennsylvania.

* * *

Remus G. Robinson, M.D., Detroit, has been appointed vice chairman of the 1952 United Negro College Fund Campaign of Michigan. Dr. Robinson will head the campaign to obtain Michigan's $80,000 quota of the $1,500,000 national goal.

* * *

The General Electric Company (X-ray Department) is sponsoring a series of full-page advertisements designed to provide a better understanding and appreciation of the role the medical profession plays in maintaining the nation's health. These advertisements are being placed in most of the leading magazines, and have such noteworthy captions as: "There *is* a doctor in the house!"; "He brings hope to the battlefields . . ."; "Here's a man looking for trouble!"; and "Now atomic energy works to save lives!"

Keep up the good work, G. E. X-Ray!

* * *

The Calhoun County Medical Society and the Calhoun County Unit of the American Cancer Society presented its ninth Cancer Education Day on April 1 in Battle Creek. Speakers included M. T. Macklin, M.D., Columbus, Ohio, and Danely P. Slaughter, M.D., Chicago. James W. Hubly, M.D., Battle Creek, was chairman of the Calhoun CMS Cancer Commitee aided by Robert K. Curry, M.D., A. R. Dickson, M.D., A. A. Humphrey, M.D., and Gilbert T. Patrick, M.D.

* * *

The Genesee County Medical Society's Seventh Annual Cancer Day was held in Flint on April 9 and introduced the following scientific speakers: Charles A. Doan, M.D., Cornelius P. Rhoads, M.D., New York City; Paul A. O'Leary, M.D., Rochester, Minnesota; William J. Boyd, M.D., Vancouver, B. C.; R. Arnold Griswold, M.D., Louisville, Kentucky. The meeting was held at the Hurley Hospital followed by dinner at the Durant Hotel. Grover C. Penberthy, M.D., was toastmaster.

Traian Leucutia, M.D., Detroit, was one of the members of a panel with Drs. Doan, Rhoads, O'Leary, and Boyd.

* * *

The Berrien County Medical Society printed in its March, 1952, *Bulletin* a "Membership Record" in order

to keep information on its members up to date. For copies of this complete membership record, write H. J. Klos, M.D., 2121 Niles, St. Joseph, Michigan.

* * *

"Who planned the nationalization of medicine?" is the title of a very searching article which appeared in the *Bulletin* of the Genesee County Medical Society (March 11, 1952, number). A thought-provoking sentence states: "Every citizen should realize that government-controlled medicine is at the heart of every scheme of state socialism and communism." The article is signed with the initials "G. V. C."

* * *

The Muskegon County Medical Society Bulletin includes a page each month dedicated to "Auxiliary News." Another is engagingly titled "Pursuits of the Practitioners" and gives the vital statistics on the medical families of Muskegon. Then there's always an amusing cartoon by Muskegon's medical cartoonist C. L. A. Oden, M.D.

The March number featured a page showing a hand with not one but two strings attached to the fingers and the caption, "Don't Forget to Register and to Vote!"

* * *

The Wayne County Medical Society Council on March 7 approved a tuberculosis and venereal disease survey by the United States Public Health Service. This project will call for combined x-ray and blood tests taken in certain high incident areas in Detroit from approximately March 15 to July 1. The purpose of the survey is twofold: (1) it is a case-finding program; (2) it will provide valuable and informative statistics. Any positive cases will be screened according to the economic status of the patient, and all patients except those unable to pay will be referred for treatment to their family physician.

* * *

Status of Hill-Burton hospital construction in Michigan is as follows:

Completed and in Operation.—Eighteen projects at a total cost of $14,383,781, including federal contribution of $5,176,257 and supplying 943 additional beds.

Under Construction.—Fifteen projects at a total cost of $17,426,530, including federal contribution of $6,683,768 and designed to supply 1,024 additional beds.

Approved, But Not Yet Under Construction.—Five projects at a total cost of $2,083,155, including $995,683 federal contribution and designed to supply 153 additional beds.

* * *

Leo H. Bartemeier, M.D., Detroit, was chosen chairman of the new AMA Committee on Mental Health (a Committee of the AMA Board of Trustees) at its initial meeting of March 27 in Chicago.

Congratulations, Doctor Bartemeier!

* * *

The Joint Commission on the Accreditation of Hospitals, recently organized by the AMA, the American Hospital Association, the American College of Surgeons, the American College of Physicians, and the Canadian Medical Association, has selected Edwin L. Crosby, M.D., as director of the Commission. Doctor Crosby,

who has been serving as director of the Johns Hopkins Hospital in Baltimore, will assume his new post September 1. He is also president-elect of the American Hospital Association.

* * *

F. L. Rector, M.D., Secretary, Cancer Control Committee, MSMS, has been awarded the first of the Public Health Cancer Association's awards for "meritorious services in the field of cancer control." The award will be presented at the next annual meeting of the Association in Cleveland, Ohio, next October.

* * *

Wilfrid Haughey, M.D., Battle Creek, JMSMS Editor, addressed the Battle Creek Kiwanis Club on March 20. His subject was "Problems Facing Medicine."

* * *

Four Fellowships for the Postgraduate Study of Rheumatic Fever and Rheumatic Heart Disease have been awarded by the Rheumatic Fever Control Committee of the Michigan State Medical Society for 1952 to the following recipients: John D. Littig, M.D., of Kalamazoo; Anthony Cefai, M.D., of Pontiac; David P. Gage, M.D., of Saginaw, and Scott T. Harris, M.D., of Ypsilanti. The fellowships carry a stipend of $500.00 for registration and expenses while attending the two-week comprehensive course to be given at St. Francis Sanatorium for Cardiac Children, Roslyn, Long Island, New York, beginning May 19, 1952.

* * *

"Doctors Lead an Old-Fashioned Crusade" is the title of a feature article in the March number of *Medical Economics* about the MSMS "Formula For Freedom—Know Yourself—Know How to Live—Know Your Government." This article, written by Roger Menges, who made a special trip to Michigan to learn about the "Formula For Freedom" points out: "Every step that will emphasize the individual's responsibility for himself will be one step away from socialism. This is what Medicine has needed—a dynamic, positive long-term program."

Medical Economics, in its March number, also features a story on Michigan's most recent Rural Health Conference with a news item on "mock trial proves worth of health program."

* * *

J. M. Robb, M.D., Detroit, has accepted appointment as General Chairman of Arrangements for the Michigan Clinical Institute of March 11-12-13, 1953.

* * *

The Genesee County Medical Society presented a "Formula For Freedom" Night on April 15 and invited key representatives of business and industry to its monthly meeting.

The session, held at Hotel Durant in Flint, attracted approximately 300 persons, including members of the

Woman's Auxiliary who aided the Committee on Arrangements with the details of the meeting.

$1,864.00 Presented to President Beck

Genesee County Medical Society President W. W. Stevenson, M.D., presented to MSMS President Otto O. Beck, M.D., Birmingham, a check for $1,864.00 as its contribution to the Beaumont Memorial Restoration. In presenting the check, Dr. Stevenson gave a brief historical sketch of the pioneering work of Dr. William Beaumont at Mackinac Island 130 years ago.

Three "FFF" Talks

J. E. Livesay, M.D., Vice Speaker of the MSMS House of Delegates, moderated the Formula For Freedom program and introduced Joseph R. Hainline of Detroit, WJR news commentator, who gave a fifteen-minute delineation of "Know Yourself."

John B. Martin, Jr., Grand Rapids, Auditor General of the State of Michigan, urged the audience to "Know Your Government" and outlined the means of doing so.

L. Fernald Foster, M.D., Bay City, Secretary of the Michigan State Medical Society, spoke on "Know How To Live."

The civic meeting was arranged under the joint sponsorship of the GCMS Program Committee and Public Relations Committee of which C. K. Stroup, M.D., and J. E. Livesay, M.D., are chairmen, respectively. Fleming A. Barbour, M.D., was chairman of arrangements for the dinner.

* * *

"Housing the Aging" is the topic for the University of Michigan Fifth Annual Conference on Aging to be held in Ann Arbor, Michigan, July 24-26, 1952. The three-day conference will consider the housing needs of healthy, chronically ill, confused, and disabled older people living in urban and rural areas. Among the topics to be discussed are types of housing and living arrangements; architectural designs and costs; hygiene and safety standards; health, social and economic aspects of housing; and auxiliary services. The conference is designed to serve as a forum for interchanging information and for getting action on the difficult problem of financing housing for the aging.

The conference is directed to national, state, and local planners; doctors of medicine, nurses, and public health workers; industrial retirement counselors; welfare and social work personnel; architects, builders, realtors; safety and sanitary engineers; public and private investment and financing agencies; directors of old age homes, nursing homes, hospitals, and housing projects; and to older people themselves who are interested in contributing to the solution of the housing problem of the aging.

The conference is under the co-sponsorship of the Institute for Human Adjustment, Schools of Architecture, Business Administration, Social Work, Public Health, and the Medical School, Extension Service and Summer Session of the University of Michigan; the Michigan State Medical Society; the Committee on Aging and Geriatrics of the Federal Security Agency, Washington, D. C., and the Housing and Home Finance Agency, Washington, D. C.

Conference registration materials may be obtained by writing to Dr. Wilma Donahue, Institute for Human Adjustment, Room 1510, Rackham Bldg., Ann Arbor, Michigan.

* * *

Medical Care Featured in Eleven Adult Education Courses.—Adult Education courses, "Medical Care Within the Family and Community," taught in cooperation with local adult education programs and County Medical Societies, have enjoyed wide popularity.

The Adult Education program is part of the element, "Know How to Live," of the Michigan State Medical Society's Formula For Freedom program.

Typical of the programs is that of the St. Clair County Medical Society, the most recent medical group to introduce the project. Under the direction of Frederick E. Ludwig, M.D., Port Huron, President of the St. Clair County Medical Society, an eight-week course has been inaugurated at Port Huron. The course, "Home Medicine Within the Family," began on April 7.

The topics for instruction include: The Importance of the Family Doctor, The Cardiac Housewife and Rheumatic Fever, Prenatal and Postnatal Care, Immunization and Allergies, How to Teach Sex to Your Children, High Blood Pressure and Living Tension plus Problems of the Aged, Cancer, and Atomic Medical Care.

Participating doctors of medicine from Port Huron are Claude Ludwig, M.D.; E. W. Meredith, M.D.; Walter Novak, M.D.; James Tisdale, M.D.; William Clelland, M.D.; Arthur Gholz, M.D.; Frederick Ludwig, M.D.; Leslie McCoy, M.D.; and Arthur Ulmer, M.D.

Earlier this year similar courses were instituted at Lansing, Bay City, Marquette, Ishpeming, Negaunee, Millington, Lake Fenton, Royal Oak, Flint, and Jackson.

In each instance, wide publicity has been given the introduction of this new program into the adult education courses. Plans are currently being made for continuation of the program in the Fall with additional communities indicating strong interest.

Provisional figures from the Michigan Department of Health show 1,164 tuberculosis deaths in Michigan during 1951 and 6,144 new cases reported.

These figures represent a 10 per cent increase over 1950 in new cases reported, following the pattern of recent years—a pattern of fluctuation with slightly upward trend. They represent a 9 per cent decline in tuberculosis deaths—a continuation of a downward trend which has cut tuberculosis deaths by more than half in the past five years.

Both the increase in cases reported and the decrease in deaths are evidences of effective effort toward tuberculosis control. They also testify to a problem not yet solved and the need for unrelaxed vigilance.

MICHIGAN TUBERCULOSIS ASSOCIATION

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

THE PRACTICE OF ENDOCRINOLOGY. Edited by Raymond Greene, M.A., D.M., M.R.C.P. Philadelphia: J. B. Lippincott Co. Price: $12.50.

This book summarizes for the busy general practitioner, the facts necessary for the diagnosis and treatment of diseases of the endocrine system without unnecessary theory, and gives only enough anatomy and physiology to serve as an adequate background. It is not intended to be a technical manual on Endocrinology. The subject matter is well presented, emphasizing the problems facing the physician and in a practical way offering suggestions for their treatment. The more important advances in the field of Endocrinology are adequately covered. In the chapter on diabetes, while insulin mixtures are thoroughly discussed, no mention is made of NPH Insulin which is used so largely in this country. The use of potassium in the treatment of severe diabetic coma is only briefly mentioned.

In the treatment of thyrotoxicosis, the English have used largely methyl thiouracil and state that their experiences with prophyl thiouracil have not been sufficient to report their results in a larger series of cases. The author does state, however, the derivatives have entirely supplanted thiouracil itself.

These criticisms are minor. The book is an excellent one, adequately covering the important advances in the field of Endocrinology, and is particularly recommended for the general practitioner as an authoritative guide to the diagnosis and treatment of endocrine diseases.

L.E.V.

LIVING IN BALANCE. By Frank S. Caprio, M.D. Washington, D. C.: The Arundel Press, Inc. Price $3.75.

Dr. Caprio presents an interesting, informative treatise written in non-technical language explaining the causes of emotional conflicts. The first four chapters orient the reader and give him a basis for understanding the remainder of the book. The concluding chapters offer a plan for not only understanding oneself and the people about, but suggests a definite plan for living in this hectic world. This reader was pleased to note that, while the author recognizes the Freudian concept as to etiology in certain conditions, this part is not emphasized.

The book is written for the laity but is well worth the time of the physician. Regardless of the type of medicine we practice, we all need a sane approach to our patients' problems. Dr. Caprio gives us this in an easily understandable form.

STANDARD NOMENCLATURE OF DISEASES AND OPERATIONS. Fourth Edition. Richard J. Plunkett, M.D., Editor, and Adaline C. Hayden, R.R.L., Associate Editor. Published for The American Medical Association. Philadelphia: The Blakiston Co., 1952. Price $8.00.

For twenty years, more and more librarians, record departments of hospitals and, in general, all those having to do with study and classification of disease and operations have been developing standard methods. The first edition of this volume was published in 1932. This is the fourth edition, and the volume has been enlarged to meet advances. The book is invaluable to medical librarians, to teaching staffs, and for reference generally. The names of conditions and diagnoses are given in reg-

ular order according to a prearranged classification, giving values to groups, etiology, area involved, et cetera. The index number is given at the left of the column, and the international listing given in italics and parantheses at the right. Every figure and digit has a meaning, making the diagnosis clear. For instance *(left)* 871-776 and *(right)* (260) (272) *Diabetes Mellitis with hyperpituitarism.*

This book is published for the American Medical Association, and is worth while for any doctor of medicine who is really interested in the finer aspects of medical diagnosis and records.

A TEXTBOOK OF ORTHOPEDICS. With a Section on Neurology in Orthopedics. By M. Beckett Howorth, M.D., Clinical Professor of Orthopedic Surgery, New York University Post-Graduate Medical School; formerly Assistant Clinical Professor of Orthopedic Surgery, College of Physicians and Surgeons, Columbia University; Associate Attending Surgeon, New York Orthopedic Hospital. In association with: Fritz J. Cramer, M.D., A. Wilbur Duryee, M.D., Donovan J. McCune, M.D., J. Wm. Littler, M.D., and Walter A. Thompson, M.D., Illustrated. Philadelphia: W. B. Saunders Co., 1952. Price $16.00.

Dr. Howorth's new text on Orthopedics is a product of a rich experience in both the practice and teaching of Orthopedic Surgery in the large New York centers. Abnormalities and diseases of the musculoskeletal system from the rarest to the more common ones are all discussed, not in minute detail, but very adequately. Etiology, pathology, and diagnosis of these conditions are given, and although detailed techniques and treatment are not stressed, there is an excellent discussion of the general principles of treatment.

The chapter on History of Orthopedics is always an interesting one, and it is well to look back and note the hardships and difficulties that have been overcome by the pioneers in this field.

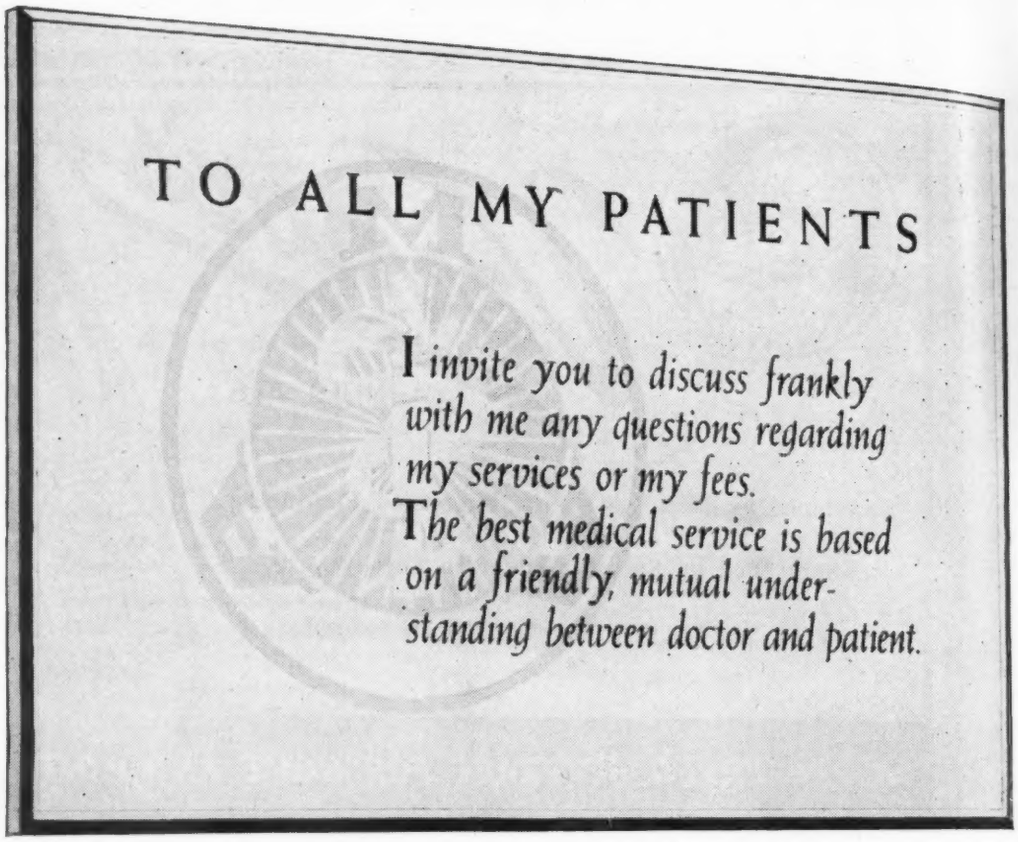
Following the section on The Basic Principles of Orthopedic Practice comes Regional Orthopedics, which deals rather briefly with conditions affecting each individual region of the body. The main portion of the book is taken up with the Orthopedic Disorders, and it is to Dr. Howorth's credit that here he has included even the most unusual and least understood abnormalities.

The last 200 pages are given over to the very important relationship between Neurology and Orthopedics which is seldom discussed in a text such as this. For this reason, this last section is most important and is extremely valuable to the Orthopedic Surgeon.

Dr. Howorth has given us a magnificent text on Orthopedics. P.C.K.

HOW TO IMPROVE YOUR SEXUAL RELATIONS. By Edwin W. Hirsch, M.D., Member of the American Urological Association; formerly Associate in Urology, College of Medicine, University of Chicago. Chicago: Zeno Publishing Company, 1951. Price, two for $1.00.

This little book is well written, intended for the doctor to give to his patient or get by prescription. It gives clear descriptions of the male and female parts, the meaning and method of the sexual act, and attempts



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CALLANDER'S SURGICAL ANATOMY. By Barry J. Anson, M.A., Ph.D. (Med. Sc.), Professor of Anatomy, Northwestern University Medical School, and Walter G. Maddock, M.S., M.D., F.A.C.S., Elcock Professor of Surgery, Northwestern University Medical School. Third Edition, 929 Illustrations. Philadelphia: W. B. Saunders Co., 1952. Price $14.00.

This book, a revision of the original text is well done. Doctors Anson and Maddock have retained the original pattern of presentation chosen by Doctor Callander, but have felt quite free to draw from the literature, to quote passages, to use or substitute engravings or original drawings when they felt such changes would clarify the text. This has, in part, affected the uniformity of the book. For example, Figure 818 suffers by comparison with Figure 819. In general, this is a minor defect and does not detract from the overall excellence of the text.

Without question the student, the intern and the surgeon will do well to add this volume to his library.

J.W.H.

BACKACHE, BIRTH AND FIGURE RELIEF BY SELF-REVOLVING HIPBONES. By Wm. Schoenau. The words herein are all defined in Webster's Dictionary. Published by Wm. Schoenau, Los Angeles, California. Price $2.00.

Our reviewer, an orthopedic surgeon, was unimpressed by this book, could find nothing to tie to, and declined to write about it. He asks, "What are self-revolving hips?" We have read the paragraph "How to Self Revolve the Hip Joint Forward by Pulling With the Legs," and admit we cannot understand what is being described.

FROM THE HOOVER REPORT

Today, four great agencies and thirty smaller ones independently obtain funds annually, erect their own hospitals to care for their own clientele, and compete with each other for scarce medical personnel. The various agencies operate with no regard for the facilities available or the needs of the other agencies. So don't fret about Government's coming into the medical field—it's here!

1952 MCI BREAKS ATTENDANCE RECORDS

(Continued from Page 607)

J. Milton Robb, M.D., Detroit: "The Institute was most successful. My Congratulations!"

Florence Ames, M.D., Monroe: "Let me say that the Michigan Clinical Institute in Detroit was a splendid meeting. I liked the grouping of related subjects into the same session."

Mrs. Robert S. Breakey, Lansing, President, Woman's Auxiliary to the Michigan State Medical Society: "Thanks for all the countless things you and all the others constantly do for us, especially at our recent meeting during the Michigan Clinical Institute in Detroit."

Ethel Balko, Director, Film Distribution, Davis & Geck Surgical Film Library, Brooklyn, N. Y. (exhibitor): "I was very happy to be able to take part in the recent Michigan Clinical Institute and much of that pleasure I must admit was due to the many courtesies extended to me by you and the members of your staff. I shall certainly look forward to attending future meetings of the Institute. Best personal regards."

Max M. Schuster, Cleveland, District Manager, E. I. du Pont de Nemours & Co., Inc. Photo Products Dept.: "I wish to thank you for the opportunity you gave to me to enjoy the contacts and comradeships with the members (both medical and technical exhibitors) of the 1952 Michigan Clinical Institute in Detroit. The privilege of attending and being with the group was the tonic the doctor ordered. It is always a pleasure to be able to say 'Hello' to old friends."

Morton Hack, Hack's Shoe Company, Detroit (exhibitor): "Good contacts, as always, were enjoyed by us last week at the 1952 Michigan Clinical Institute."

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty

TECHNICIAN CAPABLE OF MANAGING medical laboratory and x-ray department. Opportunity for advancement. Position available immediately. Woods Medical Center, 19635 Mack Avenue, Grosse Pointe Woods 30, Michigan.

WANTED: Young, draft-exempt doctor as full partner. General practice including surgery and obstetrics. Simultaneous surgical training in own Detroit hospital. Guarantee monthly take-home $1,000.00 plus. Other inducements. Reply: Box 6, 606 Townsend Street, Lansing 15, Michigan.

LOCUM TENENS: for month of July and until August 20. General practice, Grosse Pointe, Michigan. Guarantee of $1,000 per month and bonus after certain amount. Address Box 9, 606 Townsend Street, Lansing 15, Michigan.

WANTED: Physician to take over active medical and obstetrical practice in rural west Michigan community for a ten-month period beginning August 1, 1952. Excellent facilities. Remuneration and living quarters adequate and desirable. Possibility of later partnership, if mutually desirable. In reply supply full biographical information and photo. Address Box 10, 606 Townsend Street, Lansing 15, Michigan.

FOR SALE: General practice in town of 700 in rich fruit-growing section of southwestern Michigan; active local industry; no other doctor; near resorts; few miles to modern approved hospital; practice goes with purchase of modern home and office, x-ray. Reply: Box 8, 606 Townsend Street, Lansing 15, Michigan.

OPHTHALMOLOGIST desires location in Michigan. Male, aged 38. Reply: Box 5, 606 Townsend Street, Lansing 15, Michigan.

YOUNG DOCTOR wanted to take over busy general practice July; farming, year around resort area; excellent hospital, consultation facilities; completely equipped new office, X-Ray, EKG, BMR, etc.; low rent. Leaving to specialize. Write: D. E. Boblitt, M.D., Mesick, Michigan.

FOR SALE: Doctor's home and offices in business location and medical center in Saginaw, Michigan. Write: Mrs. E. C. Kinsman, 302 S. Jefferson Avenue, Saginaw, Michigan.

WANTED: Physician, A-1 location in southeast Michigan. Ten-minute drive to several hospitals, a chance of a liftetime location. 10,000 people live in a radius of three miles of this community. Reply: Box 11, 606 Townsend Street, Lansing 15, Michigan.

BRITISH MEDICAL PLAN SLIDING DOWNHILL

The once-famous and highly tooted British health plan is running into more trouble.

Newspapers reported recently that Churchill's government has introduced legislation to cut the cost of Britain's socialized medicine scheme by 21 million pounds or $58,800,000 a year.

The cut is being accomplished by sharply modifying the "free" provisions of the service. Under new provisions patients will have to pay.

The bill seeks to impose a charge of one pound ($2.80) for a course of dental treatment. A shilling (14 cents) charge will be imposed for drugs supplied through hospital outpatient departments.

Before going out of office last fall, the Labor party which gave birth to the socialized medicine scheme, made the first big modification in the plan. The Laborite required patients to assume half of the cost of false teeth and spectacles. Now patients also will have to pay half the cost of such items as wigs, hearing aids, surgical boots and elastic stockings if the bill goes through. And the Conservatives, with a majority of fourteen, are expected to push it through.